

**PENNSYLVANIA**  
**Department of Agriculture**  
**HARRISBURG, PA.**

---

**Vol. 6**

**NOVEMBER, 1923**

**No. 7**

---

**GENERAL BULLETIN NO. 378**

# **Fertilizer Report**

**January 1 to July 31, 1923**

**JAMES W. KELLOGG, Director—Chief Chemist**

**BUREAU OF CHEMISTRY**



**Published Monthly by Direction of**  
**F. P. WILLITS, Secretary of Agriculture, Harrisburg, Pa.**

---

Entered as second class matter, March 22, 1918, at the Post Office at Harrisburg, Pa., under the Act of June 6, 1900. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized on June 29, 1918.



## CONTENTS.

---

|  | Page |
|--|------|
| Letter of Transmittal, .....   | 5    |
| Introduction, .....  | 7    |
| Acknowledgments, .....   | 10   |
| Table I—Deficiencies, .....  | 11   |
| Table II—Average Analyses and Retail Prices, .....                             | 11   |
| Table III—Average Analyses of Complete Fertilizers by<br>Formula Grades, ..... | 12   |
| Key to Tables, .....   | 13   |
| Table IV—Analyses of Complete Fertilizers, .....                               | 14   |
| Table V—Analyses of Nitrogen and Phosphoric Acid Fertiliz-<br>ers, .....       | 40   |
| Table VI—Analyses of Ground Bone Fertilizers, .....                            | 42   |
| Table VII—Analyses of Acidulated Phosphate Fertilizers, ...                    | 44   |
| Table VIII—Analyses of Rock and Potash Fertilizers, .....                      | 54   |
| Table IX—Analyses of Miscellaneous Fertilizers, .....                          | 62   |



LETTER OF TRANSMITTAL

---

PENNSYLVANIA DEPARTMENT OF AGRICULTURE  
BUREAU OF CHEMISTRY

Harrisburg, November 16, 1923.

Hon. F. P. Willits,  
Secretary of Agriculture,  
Harrisburg, Pa.

Dear Sir:—

I have the honor to transmit herewith for your approval a report showing in tabular form the results of chemical analyses made by this Bureau, in accordance with the requirements of the Fertilizer Law, of the official samples of Commercial Fertilizers, obtained by the Special Agents during the Spring Season of 1923.

It is recommended that this report be published in bulletin form for distribution.

Very respectfully,

JAMES W. KELLOGG,

Director-Chief Chemist.



# FERTILIZER REPORT

January 1 to July 31, 1923.

---

## INTRODUCTION

---

During the Spring Fertilizer Inspection Season of 1923 Special Agents of the Bureau of Chemistry visited Dealers and Selling Agents throughout the State where Commercial fertilizers were being offered for sale and submitted, together with detailed reports covering each, 849 official samples. Of this number 756, representing 485 different kinds and brands, registered by 53 manufacturing and Importing firms, were analyzed for the amounts of plant food which they contained, namely, nitrogen, total, available and insoluble phosphoric acid and water soluble potash, to determine whether or not the guarantees upon sacks or attached cards were correct. Those samples not analyzed were duplicate brands and from small shipments. Those examined represented six different classes or types of fertilizers; which, together with the number of samples and brands in each, were as follows: Complete Fertilizers, supplying nitrogen, available phosphoric acid and potash, 487-315; Nitrogen and Phosphoric Acid Fertilizers, supplying nitrogen and available phosphoric acid, 10-10; Ground Bone Fertilizers, supplying nitrogen and total phosphoric acid, 17-13; Acidulated Phosphate Fertilizers, supplying available phosphoric acid, 117-56; Rock and Potash Fertilizers, supplying available phosphoric acid and water soluble potash, 65-50; and Miscellaneous Fertilizers, including Nitrate of Soda, Dried Fish, Tankage, Kainit, Muriate of Potash, Sulphate of Potash and a few miscellaneous grades, 60-41.

The results of chemical analyses showed that of the total number of samples 152, or 20.1 per cent., were deficient in one or more forms of plant food, failing to meet claimed guarantees to the extent of .2 per cent., (in the case of guarantees of .50 per cent. or less, to the extent of .1 per cent.) or more below their guarantees. This proportion of deficiencies considerably exceeded those noted in the three preceding (Spring and Fall) Inspections and is entirely

too large for a satisfactory condition, with respect to stating correct guarantees. In a number of these cases where a fertilizer was deficient in one constituent the deficiency was balanced or compensated for to a large extent by an overage in the remaining elements. However, as will be noted by referring to the large Table, some of the deficiencies were excessive and were not so balanced. In the Nitrogen and Phosphoric Acid Fertilizers, 20 per cent. were deficient in available phosphoric acid; of the Ground Bone Fertilizers 17.6 per cent. were deficient in nitrogen and to the same extent in total phosphoric acid; the Complete Fertilizers had 15 per cent. deficient in available phosphoric acid and the available phosphoric acid was less than claimed in 16.9 per cent. of the Rock and Potash Fertilizers. Of the few Miscellaneous brands one-fourth of them contained less potash than guaranteed.

In the case of those fertilizers supplying nitrogen from organic sources there was no evidence, as a result of microscopical examinations, of the presence of such untreated materials as leather, hoof, horn or wool waste, which, when used as a source of nitrogen supply, are required to be named on the labels.

The reports submitted by the Special Agents for each brand sampled showed that there were a number of violations where full or complete guarantees for the various forms of plant food were not given and also in certain other cases that the brand names did not correspond with those registered.

Because of the great number of different formula grades of fertilizers on the markets throughout the country, many of which contained only small amounts of total plant food, it had come to be recognized that attempts should be made to bring about, by means of cooperation, a reduction in the number of such formulas as well as to promote the sale of those brands which would supply the larger amounts of total plant food. With this end in view the Manufacturers, together with the Agronomists and Officials of the Middle Atlantic States, including Pennsylvania, at a convention held during February, 1923, recommended for general use, and which would be adequate for most soils and crop conditions in these states, fifteen different formula grades of Mixed Fertilizers, all to contain 14 or more per cent. of total plant food, as follows: 7-6-5, 6-8-4, 5-8-5, 5-10-5, 4-12-4, 4-8-4, 4-8-6, 3-10-6, 3-8-8, 3-8-3, 2-10-6, 2-12-4, 2-12-2, 4-12-0 and 0-12-6. It was also agreed that in addition to the use of Acid Phosphate and other Base Goods, in order to meet special conditions, four additional formula grades be recommended, namely, 4-8-10, 10-5-0, 0-10-10, and 0-10-4. Similar recommendations have been adopted for other groups of states and, therefore, it is generally recognized by both Manufacturers and State Officials that any fertilizer to be considered as having a "high analysis" and in order to



be recommended as a "high grade" fertilizer, should contain at least a total of 14 per cent. of one or more forms of plant food, namely, nitrogen as ammonia, available phosphoric acid or water soluble potash. Of the 375 brands of Mixed Fertilizers included in this report slightly more than half, or 193, were "high analysis" brands.

Of the 315 brands of Complete Fertilizers, including 59 different formula grades, there were 160 brands, representing 38 different formulas, or more than one-half of this group, which contained 14 per cent. or more total plant food. Of those high grade formulas recommended for general use 8 brands were included, which, however, as far as the Spring Inspection is concerned, were among the less numerous or popular brands, namely 2-10-6, 2-12-2, 2-12-4, 3-8-3, 4-8-4, 4-8-6, 5-8-5 and 7-6-5. Of the special list 1 brand of 4-8-10 was included. The results of analyses of both the high and low analysis formula grades were grouped and tabulated separately for the purpose of comparison and, together with the number of brands and samples in each, will be found in Table III. A study of this Table will reveal the fact that it cost more money per unit of plant food to purchase the low than it does the high grades of fertilizers. It will also be found by a study of the large Table IV that there were wide differences in the retail ton selling prices of those brands having the same formulas and which supplied the same amounts of total plant foods, which amounted to as much as \$17.00 as in the case of the 2-8-5 and the 4-8-6 formula grades. As has been noted in previous Fertilizer Reports if the purchases would desire to obtain the most amount of plant food for the money expended the prices quoted for like formula grades of fertilizers should be carefully considered. With the exception of 9 samples where the potash was both in the muriate and sulphate forms and 1 in the sulphate form, the potash in the Complete Fertilizers was found to be present as muriate of potash. The samples of the high grade formula brands averaged 1.72 per cent. nitrogen, 8.71 per cent. available phosphoric acid and 6.59 per cent. potash, or a total of 17.02 per cent. plant food, retailing at \$34.95 a ton. The low grade brands averaged 1.19 per cent. nitrogen, 8.25 per cent. available phosphoric acid and 2.88 per cent. potash, totaling 12.32 per cent. plant food, retailing at \$28.39 a ton.

Of the Nitrogen and Phosphoric Acid Mixed Fertilizers 2 of the 10 samples and brands were "high analysis" materials, averaging 1.78 per cent. nitrogen, 12.33 per cent. available phosphoric acid, totaling 14.11 per cent. plant food, retailing at an average of \$31.50 a ton, compared with the remaining low grade formula brands, which averaged 1.19 per cent. nitrogen and 9.58 per cent. available phosphoric acid, or a total of 11.77 per cent. plant food, retailing at \$28.82 a ton. The Mixed Fertilizers, numbering 65 samples and

50 brands, classified as Rock and Potash Fertilizers, included 39 samples and 31 brands, having the "high analysis" formulas, which averaged 10.95 per cent. available phosphoric acid and 6.15 per cent. potash, totaling 17.10 per cent. plant food, having an average retail value of \$26.70 a ton, compared with the remaining brands of the "low analysis" materials, which averaged 9.53 per cent. available phosphoric acid and 3.47 per cent. potash, or a total of 13.00 per cent. plant food, retailing at an average value of \$24.46 a ton.

In the following pages will be found Acknowledgments; Table I, showing Deficiencies; Table II, showing Average Analyses and Retail Prices; Table III, Average Analyses of Complete Fertilizers by formula grades; Key to Tables, and Tables IV, V, VI, VII, VIII, and IX, showing by classes the formula grades, the results of chemical analyses in detail with Chemist's Nos., guarantees, brand names, names and addresses of Manufacturers, Importers and Selling Agents.

---

## ACKNOWLEDGMENTS

---

The immediate supervision of the analytical work was in charge of V. B. Hausknecht, First Assistant Chemist, who also had charge of reception and preparation of samples and made duplicate check analyses where required. The microscopical examinations were made by H. E. Gensler, Assistant Chemist. The following Assistant Chemists performed the chemical analyses, G. J. Kuhlmann, Jr., F. B. Williams, C. R. Engle, Leroy Pennypacker and W. F. Boath.

The immediate inspection work in the field was in charge of G. G. Hutchinson, General Agent, and the compilation and preparation of Tables and assembling the necessary data for this report was performed by W. E. Huber, Bookkeeper and Clerk. The samples were prepared for analysis by W. W. Cassel, Laboratory Assistant.

TABLE I—DEFICIENCIES.

| Classes of Fertilizers.                         | Number of samples. | Deficient in nitrogen. | Deficient in available phosphoric acid. | Deficient in Potash. |
|---|--------------------|------------------------|---|----------------------|
| Complete fertilizers, -----                     | 487                | 16                     | 73                                      | 31                   |
| Nitrogen and phosphoric acid fertilizers, ----- | 10                 |                        | 2                                       |                      |
| Ground bone fertilizers, -----                  | 17                 | 3                      | *3                                      |                      |
| Acidulated phosphate fertilizers, -----         | 117                |                        | 13                                      |                      |
| Rock and potash fertilizers, -----              | 65                 |                        | 11                                      | 2                    |
| Miscellaneous fertilizers, -----                | 60                 |                        | *1                                      | 6                    |
| Totals, -----                                   | 756                | 19                     | 103                                     | 39                   |

\*Total phosphoric acid.

TABLE II—AVERAGE ANALYSES AND RETAIL PRICES.

|  | Complete fertilizers. | Nitrogen and phosphoric acid fertilizers. (Dissolved bones, etc.) | Ground bone fertilizers. | Acidulated phosphate fertilizers. | Rock and potash fertilizers. |
|--|-----------------------|---|--------------------------|-----------------------------------|------------------------------|
| Number of samples, -----                   | 487                   | 10  | 17                       | 117                               | 65                           |
| Moisture, -----                            | % 6.22                | % 5.63  | % 6.06                   | % 5.64                            | % 6.03                       |
| Total nitrogen, -----                      | 1.72                  | 1.31  | 3.02                     |                                   |                              |
| Total phosphoric acid, -----               | 9.42                  | 11.44   | 24.06                    | 16.90                             | 11.07                        |
| Available phosphoric acid, -----           | 8.49                  | 10.12   |                          | 16.50                             | 10.37                        |
| Insoluble phosphoric acid, -----           | 0.93                  | 1.32  |                          | 0.75                              | 0.70                         |
| Potash, -----                              | 4.85                  |   |                          |                                   | 5.07                         |
| Mechanical analysis of bone:               |                       |   |                          |                                   |                              |
| Fine, -----                                |                       |   | 65                       |                                   |                              |
| Coarse, -----                              |                       |   | 35                       |                                   |                              |
| Selling price, -----                       | \$31.86               | \$29.42   | \$49.50                  | \$19.39                           | \$25.80                      |
| Average selling price, Fall, 1922, -----   | \$27.55               | \$25.43   | \$43.94                  | \$16.46                           | \$23.05                      |
| Average selling price, Spring, 1922, ----- | \$30.69               | \$27.45   | \$43.21                  | \$17.72                           | \$25.32                      |

TABLE III—AVERAGE ANALYSES OF COMPLETE FERTILIZERS BY FORMULA GRADES.

| Formula.              | Number of Brands. | Number of Samples. | Nitrogen. | Phosphoric Acid. | Potash. | Price.   |
|-----------------------|-------------------|--------------------|-----------|------------------|---------|----------|
| High Grade Formulas.  |                   |                    |           |                  |         |          |
| 1-8-5, -----          | 2                 | 3                  | % 0.94    | % 7.82           | % 5.44  | \$ 27.73 |
| 1-8-6, -----          | 2                 | 6                  | 0.96      | 8.44             | 6.45    | 31.38    |
| 1-9-5, -----          | 1                 | 1                  | 0.89      | 9.20             | 5.12    | 30.40    |
| 2-7-10, -----         | 2                 | 2                  | 1.72      | 7.10             | 10.79   | 35.50    |
| 2-8-4, -----          | 15                | 22                 | 1.73      | 8.14             | 4.37    | 32.05    |
| 2-8-5, -----          | 22                | 39                 | 1.77      | 8.17             | 5.36    | 31.40    |
| 2-8-6, -----          | 1                 | 1                  | 1.56      | 7.47             | 5.79    | 36.00    |
| 2-8-7, -----          | 1                 | 1                  | 1.90      | 8.41             | 7.59    | 34.50    |
| 2-8-10, -----         | 35                | 72                 | 1.77      | 8.33             | 10.22   | 35.15    |
| 2-9-3, -----          | 2                 | 2                  | 1.82      | 8.84             | 3.39    | 30.00    |
| 2-10-2, -----         | 2                 | 3                  | 1.67      | 10.18            | 2.27    | 26.50    |
| 2-10-4, -----         | 2                 | 4                  | 1.85      | 10.20            | 4.46    | 31.13    |
| 2-10-6, -----         | 2                 | 2                  | 1.71      | 10.02            | 6.43    | 34.00    |
| 2-12-2, -----         | 9                 | 13                 | 1.84      | 11.87            | 2.40    | 32.53    |
| 2-12-4, -----         | 3                 | 3                  | 1.65      | 10.82            | 5.46    | 31.25    |
| 2-12-6, -----         | 1                 | 2                  | 1.73      | 12.08            | 6.27    | 37.00    |
| 2-12-8, -----         | 1                 | 1                  | 1.79      | 11.95            | 7.40    | 33.00    |
| 2-16-2, -----         | 3                 | 4                  | 1.82      | 15.54            | 2.43    | 38.17    |
| 3-7-10, -----         | 1                 | 1                  | 2.40      | 7.39             | 11.99   | 38.00    |
| 3-8-3, -----          | 2                 | 2                  | 2.63      | 9.16             | 4.06    | 34.00    |
| 3-8-4, -----          | 4                 | 5                  | 2.46      | 7.99             | 4.26    | 35.82    |
| 3-8-6, -----          | 1                 | 1                  | 2.75      | 7.65             | 6.44    | 45.00    |
| 3-9-2, -----          | 1                 | 1                  | 2.29      | 8.70             | 3.12    | -----    |
| 3-12-3, -----         | 2                 | 2                  | 2.52      | 12.37            | 3.45    | 37.00    |
| 3-12-10, -----        | 1                 | 1                  | 2.53      | 11.52            | 10.07   | 37.50    |
| 4-6-10, -----         | 1                 | 1                  | 3.26      | 6.65             | 9.55    | 42.00    |
| 4-8-3, -----          | 1                 | 1                  | 3.00      | 8.31             | 3.00    | 36.00    |
| 4-8-4, -----          | 11                | 18                 | 3.24      | 8.09             | 4.39    | 37.93    |
| 4-8-5, -----          | 5                 | 9                  | 3.12      | 8.29             | 5.71    | 33.65    |
| 4-8-6, -----          | 11                | 18                 | 3.31      | 8.34             | 6.25    | 39.20    |
| 4-8-7, -----          | 4                 | 6                  | 3.23      | 8.57             | 7.56    | 39.13    |
| 4-8-8, -----          | 1                 | 2                  | 3.25      | 8.36             | 9.91    | 38.00    |
| 4-8-10, -----         | 1                 | 1                  | 3.79      | 8.30             | 8.20    | 45.00    |
| 5-6-5, -----          | 1                 | 1                  | 4.20      | 6.05             | 5.46    | 40.00    |
| 5-8-5, -----          | 2                 | 3                  | 3.75      | 8.26             | 4.88    | 42.07    |
| 5-8-7, -----          | 1                 | 2                  | 4.23      | 8.68             | 7.72    | 44.20    |
| 6-7-5, -----          | 1                 | 1                  | 5.20      | 9.35             | 6.18    | 50.00    |
| 7-6-5, -----          | 2                 | 2                  | 5.16      | 6.21             | 5.59    | 43.15    |
| 38 Totals, -----      | 160               | 259                | 2.19      | 8.71             | 6.59    | 34.95    |
| Low Grade Formulas    |                   |                    |           |                  |         |          |
| 1-6-1, -----          | 1                 | 1                  | 0.60      | 6.77             | 1.86    | 22.00    |
| 1-7-2, -----          | 1                 | 1                  | 0.47      | 10.87            | 2.58    | -----    |
| 1-7-3, -----          | 1                 | 1                  | 0.55      | 7.36             | 3.05    | 32.00    |
| 1-8-1, -----          | 2                 | 3                  | 0.64      | 8.66             | 1.53    | 24.17    |
| 1-8-2, -----          | 5                 | 7                  | 0.57      | 8.07             | 2.70    | 25.27    |
| 1-8-4, -----          | 1                 | 1                  | 0.66      | 7.65             | 4.69    | 25.00    |
| 1-7-1, -----          | 11                | 14                 | 0.92      | 7.30             | 1.28    | 26.40    |
| 1-7-4, -----          | 1                 | 1                  | 1.13      | 7.60             | 5.14    | 30.50    |
| 1-7-5, -----          | 1                 | 1                  | 0.84      | 7.65             | 4.26    | -----    |
| 1-8-1, -----          | 16                | 21                 | 0.95      | 8.17             | 1.33    | 26.37    |
| 1-8-2, -----          | 24                | 50                 | 1.01      | 8.20             | 2.37    | 27.14    |
| 1-8-3, -----          | 2                 | 2                  | 0.94      | 8.67             | 3.76    | 27.00    |
| 1-8-4, -----          | 25                | 44                 | 0.96      | 8.21             | 4.38    | 28.63    |
| 1-9-2, -----          | 5                 | 11                 | 0.97      | 8.96             | 2.43    | 29.97    |
| 1-9-3, -----          | 17                | 27                 | 1.01      | 8.93             | 3.36    | 28.49    |
| 1-7-2, -----          | 1                 | 4                  | 1.57      | 7.77             | 2.46    | 30.83    |
| 1-9-2, -----          | 1                 | 1                  | 1.63      | 9.73             | 2.54    | 28.00    |
| 2-7-3, -----          | 1                 | 2                  | 1.61      | 8.71             | 4.10    | 27.00    |
| 2-8-2, -----          | 25                | 35                 | 1.86      | 8.14             | 2.32    | 30.10    |
| 2-8-3, -----          | 13                | 20                 | 1.85      | 8.17             | 3.43    | 30.25    |
| 4-3-5, -----          | 1                 | 1                  | 3.24      | 3.60             | 5.04    | 38.00    |
| 21 Totals, -----      | 155               | 228                | 1.19      | 8.25             | 2.88    | 23.39    |
| 59 Grand total, ----- | 315               | 487                | 1.72      | 8.49             | 4.85    | 31.86    |

## KEY TO TABLES.

The following tables include the detailed results of chemical analyses of each sample. All samples were given a chemist's number as shown in the extreme left and right hand columns and are grouped in alphabetical order of manufacturers and brand names. Each class is shown in separate tables and the following information will serve as a key to these tables:

The asterick (\*) indicates the cases where total nitrogen, available phosphoric acid and total potash are deficient to the extent of .2 per cent. or more below their respective guarantees. In cases where the guarantees are .5 per cent. or less the deficiencies noted are where the amount is .1 per cent. or more below the guarantees.

Order of results of analysis: Moisture, Total Nitrogen found and guaranteed, Total Phosphoric Acid found and guaranteed; Available Phosphoric Acid found and guaranteed; Insoluble Phosphoric Acid found and guaranteed; Total Potash found and guaranteed, and Potash as Muriate and as Sulphate.

To determine the formula of any brand, as guaranteed, multiply Total Nitrogen guaranteed by 1.2158 to obtain Ammonia and then use this figure and the guarantees for Available Phosphoric Acid and Total Potash. For example, Nitrogen guarantee equals .82% ( $.82 \times 1.2158 = 1\%$ .) Ammonia equals 1% Available Phosphoric Acid 8% Potash 1%. Formula therefore is 1-8-1.

Table IV, Complete Fertilizers, furnishing Nitrogen, Phosphoric Acid and Potash.

Table V, Nitrogen and Phosphoric Acid Fertilizers, including Dissolved Bones and other like products.

Table VI, Ground Bone Fertilizers, furnishing Nitrogen and Phosphoric Acid.

Table VII, Acidulated Phosphoric Fertilizers, furnishing Phosphoric Acid.

Table VIII, Rock and Potash Fertilizers, furnishing Phosphoric Acid and Potash.

Table IX, Miscellaneous Fertilizers, including Nitrate of Soda, Dried Fish, Tankage, Kainit, Muriate of Potash, Sulphate of Potash and Miscellaneous Mixtures,



TABLE IV—COM  
Furnishing Nitrogen Phos

Chemist's number.

Name of Manufacturer and Brand.

Sample Taken From—

HIGH GRADE FORMULES.

THE AMERICAN AGRICULTURAL  
CHEMICAL CO., NEW YORK, N. Y.

4477 Bowker's Special Crop Grower, -----  
 5117 Bradleys Monmouth Staple Phosphate, ----  
 4812 Bradleys Special Weymouth Fertilizer, ----

4820 Bradley's Weymouth Staple Phosphate, ----  
 5094 Bradley's Weymouth Staple Phosphate, ----  
 5056 Canton Chemical Potato Manure, -----  
 5044 Complete Manure with 6% Potash, -----  
 4696 Complete Maunre with 6% Potash, -----  
 4944 Crokers High Grade Special -----  
 4817 General Truak Fertilizer, -----  
 5134 High Grade Crop Pducer, -----  
 4494 High Grade Potash Compound, -----  
 5051 High Grade Potash Compound, -----

4961 High Grade Potash Compound, -----  
 5177 High Grade Potash Compound, -----  
 5149 Lister's A. B. C. Fertilizer (Abundance  
 Brand Compound). -----  
 4561 Lister's Big Crop Grower, -----  
 5048 Lister's Big Crop Grower, -----

5209 Lister's Big Crop Grower, -----  
 4584 Lister's Big Crop Grower, -----  
 5148 Lister's Freehold Special for Potatoes, ----  
 4849 Lister's Perfect Potato Manure, -----  
 5151 Lister's Perfect Potato Manure, -----  
 4618 Lister's 10% Potash Fertilizer, -----  
 4862 Lister's 10% Potash Fertilizer, -----  
 5002 Lister's 10% Potash Fertilizer, -----  
 5265 Ludman's Ceorops Standard, -----  
 4948 N. P. K. Grape Fertilizer, -----  
 4850 Patapseo Special Complete Manure, -----  
 5023 Patapseo Vegetable and Corn Fertilizer, ----  
 4824 Patapseo Vegetable and Corn Fertilizer, ----  
 5176 Peerless Vegetable and Grain Grower, -----  
 4947 Red Dragon Guano, -----  
 4706 Superior Potash Mixture, -----

4659 J. E. Tygert's Gold Edge Potato Guano, --  
 5141 J. E. Tygert's Potato Guano with 6% Potash. -----  
 5143 J. E. Tygert's Special Potato and Tomato Guano. -----  
 5081 Woolridge's Special Potato and Tobacco Fertilizer. -----  
 4483 Woolridge's Special Potato and Tobacco Fertilizer. -----

AMERICAN FERTILIZING COMPANY,  
NEW YORK, N. Y.

4843 American Prize Guano, -----

ARMOURS FERTILIZER WORKS, BALTI-  
MORE, MD.

4474 Armour's (Big Crop Fertilizers) 2-8-5, ----  
 4563 Armour's (Big Crop Fertilizers) 2-8-5, ----  
 5241 Armour's (Big Crop Fertilizers) 2-8-5, ----  
 4877 Armour's (Big Crop Fertilizers) 2-8-5, ----  
 4565 Armour's (Big Crop Fertilizers) 2-8-10, ----  
 5038 Armour's (Big Crop Fertilizers) 2-8-10, ----  
 5113 Armour's (Big Crop Fertilizers) 2-8-10, ----

H. A. Fishburn, Penbrook, -----  
 Jacob Keeks Sons, Middlebury, -----  
 Farmers & Consumers Commercial Union, Troy. -----

H. A. Craumer, Monroeton, -----  
 Chas. McDowell, Mansfield, -----  
 F. P. Waite, Tyrone, -----  
 M. R. Brumbaugh, Martinsburg, -----  
 E. D. Everts Hardware Co., Warren, ----  
 Phillips & Minner, New Wilmington, ---  
 W. N. Bailey, Towanda, -----  
 Frank Giles, Creamton, -----  
 Elmer Crone, Wellsville, -----  
 Ebensburg Milling & Supply Co., Ebensburg. -----

J. J. Kenedy, Zelienople, -----  
 H. P. Passmore & Brother, Oxford, ----  
 W. E. Ervin & Son, Somerton, -----

W. T. Balsiger, Apollo, -----  
 Ebensburg Milling & Supply Co., Ebensburg. -----

E. J. Hull, Olyphant, -----  
 Shippensburg Elevator Co., Shippensburg, -----  
 W. E. Ervin & Son, Somerton, -----  
 C. W. Deakin, Susquehanna, -----  
 W. E. Ervin & Son, Somerton, -----  
 B. B. Fox, Lyon Station, -----  
 J. E. Jackson, Everett, -----  
 I. S. Rosenberger, Silverdale, -----  
 H. E. Newman, West Salisbury, -----  
 W. A. Bright, Greenville, -----  
 Harrington & Co., Montrose, -----  
 Jacob M. Rush, Plumsteadville, -----  
 Y. W. Stalford, Dushore, -----  
 H. P. Passmore & Brother, Oxford, ----  
 W. A. Bright, Greenville, -----  
 Union City Coal & Supply Co., Union City. -----

Wm. H. Lenhard, Phoenixville, -----  
 Mullin & Stevens, Bustleton, -----

Mullin & Stevens, Bustleton, -----

B. L. Shipman, Muney, -----

Robert Wentz, Wellsville, -----

J. H. Hartman, Hopbottom, -----

Wm. Divler, Brookville, -----

Frank Douglass, Indiana, -----

W. H. Dunlap, Jr., Canonsburg, -----

A. F. Wentz, Jersey Shore, -----

Frank Douglass, Indiana, -----

Hibner-Hoover Hardware Co., DuBois, --

J. T. King, Lawrenceville, -----

PLETE FERTILIZERS.  
phoric Acid and Potash.

| Moisture | NITRO-<br>GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place<br>of selection. | Chemist's number. |
|----------|----------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|---|-------------------|
|          | Found.         | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as Muriate. | Present as Sulphate. |   |                   |
|          |                |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |   |                   |
| %        | %              | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$  |                   |
| 8.77     | 1.53           | 1.65        | 9.20             | 9.00        | 8.06       | 8.00        | 1.14       | 1.00        | 9.22    | 10.00       | 9.22                | -----                | 37 00   | 4477              |
| 5.32     | 2.04           | 1.65        | 9.13             | 9.00        | 8.49       | 8.00        | 0.64       | 1.00        | 10.45   | 10.00       | 10.45               | -----                | 30 00   | 5117              |
| 5.53     | 1.70           | 1.65        | 9.06             | 9.00        | 8.32       | 8.00        | 0.74       | 1.00        | 4.22    | 4.00        | 4.22                | -----                | 31 00   | 4812              |
| 6.08     | 1.72           | 1.65        | 8.87             | 9.00        | 8.29       | 8.00        | 0.58       | 1.00        | 10.31   | 10.00       | 10.31               | -----                | -----   | 4820              |
| 4.62     | 2.03           | 1.65        | 9.03             | 9.00        | 7.92       | 8.00        | 1.11       | 1.00        | 10.34   | 10.00       | 10.34               | -----                | 36 00   | 5094              |
| 6.21     | 1.57           | 1.65        | 9.76             | 9.00        | 8.44       | 8.00        | 1.32       | 1.00        | 4.10    | 4.00        | 4.10                | -----                | -----   | 5065              |
| 5.20     | 3.45           | 3.29        | 9.10             | 9.00        | 8.01       | 8.00        | 1.00       | 1.00        | 6.32    | 6.00        | 6.32                | -----                | -----   | 5044              |
| 4.23     | *3.08          | 3.29        | 8.70             | 9.00        | *7.78      | 8.00        | 0.92       | 1.00        | 6.97    | 6.00        | 6.97                | -----                | 50 00   | 4696              |
| 7.02     | 1.86           | 1.65        | 9.41             | 9.00        | 8.63       | 8.00        | 0.78       | 1.00        | 4.05    | 4.00        | 4.05                | -----                | 35 00   | 4941              |
| 6.00     | 2.53           | 2.47        | 9.27             | 9.00        | *7.59      | 8.00        | 1.68       | 1.00        | 4.32    | 4.00        | 4.32                | -----                | 35 00   | 4817              |
| 5.24     | 1.98           | 1.65        | 9.13             | 9.00        | 8.41       | 8.00        | 0.72       | 1.00        | 4.55    | 4.00        | 4.55                | -----                | 32 00   | 5134              |
| 10.08    | 2.22           | 1.65        | 8.58             | 9.00        | *7.74      | 8.00        | 0.84       | 1.00        | *9.31   | 10.00       | 9.31                | -----                | -----   | 4494              |
| 6.15     | 2.01           | 1.65        | 9.24             | 9.00        | *7.73      | 8.00        | 1.51       | 1.00        | 10.02   | 10.00       | 10.02               | -----                | 40 35   | 5051              |
| 6.22     | 1.83           | 1.65        | 9.12             | 9.00        | 8.58       | 8.00        | 0.54       | 1.00        | *9.06   | 10.00       | 9.06                | -----                | 33 00   | 4961              |
| 5.77     | 1.80           | 1.65        | 8.64             | 9.00        | *7.80      | 8.00        | 0.84       | 1.00        | 10.36   | 10.00       | 10.36               | -----                | 32 00   | 5177              |
| 7.15     | 2.07           | 1.65        | 12.25            | 13.00       | *11.36     | 12.00       | 0.89       | 1.00        | 2.74    | 2.00        | 2.74                | -----                | 30 00   | 5149              |
| 6.75     | 1.69           | 1.65        | 8.55             | 9.00        | *7.63      | 8.00        | 0.92       | 1.00        | 4.02    | 4.00        | 4.02                | -----                | 30 50   | 4561              |
| 5.77     | 1.78           | 1.65        | 8.81             | 9.00        | *7.51      | 8.00        | 1.30       | 1.00        | 4.54    | 4.00        | 4.54                | -----                | 36 00   | 5048              |
| 4.82     | 2.00           | 1.65        | 8.27             | 9.00        | *7.61      | 8.00        | 0.66       | 1.00        | 4.95    | 4.00        | 4.95                | -----                | 35 00   | 5209              |
| 9.41     | 1.62           | 1.65        | 9.27             | 9.00        | 8.17       | 8.00        | 1.10       | 1.00        | 3.88    | 4.00        | 3.88                | -----                | 34 00   | 4584              |
| 4.71     | 3.26           | 3.29        | 7.11             | 7.00        | 6.65       | 6.00        | 0.46       | 1.00        | *9.55   | 10.00       | 9.55                | -----                | 42 00   | 5148              |
| 5.06     | 3.28           | 3.29        | 8.94             | 9.00        | 8.02       | 8.00        | 0.92       | 1.00        | 4.42    | 4.00        | 4.42                | -----                | -----   | 4849              |
| 5.57     | 3.43           | 3.29        | 8.78             | 9.00        | 8.14       | 8.00        | 0.64       | 1.00        | 4.33    | 4.00        | 4.33                | -----                | 37 00   | 5151              |
| 8.49     | 1.61           | 1.65        | 9.49             | 9.00        | 8.19       | 8.00        | 1.30       | 1.00        | 10.09   | 10.00       | 10.09               | -----                | -----   | 4618              |
| 5.98     | 1.85           | 1.65        | 9.20             | 9.00        | 8.06       | 8.00        | 1.14       | 1.00        | 11.09   | 10.00       | 11.09               | -----                | 36 00   | 4862              |
| 5.25     | 1.98           | 1.65        | 8.67             | 9.00        | 8.01       | 8.00        | 0.66       | 1.00        | 10.45   | 10.00       | 10.45               | -----                | 37 50   | 5002              |
| 5.50     | 1.80           | 1.65        | 9.52             | 9.00        | 8.18       | 8.00        | 1.34       | 1.00        | 4.11    | 4.00        | 4.11                | -----                | 29 90   | 5265              |
| 6.57     | 2.49           | 2.47        | 13.01            | 13.00       | 12.37      | 12.00       | 0.64       | 1.00        | 3.25    | 3.00        | 3.25                | -----                | -----   | 4948              |
| 8.29     | 2.39           | 2.47        | 8.97             | 9.00        | 8.31       | 8.00        | 0.66       | 1.00        | 4.15    | 4.00        | 4.15                | -----                | 40 00   | 4850              |
| 4.95     | 1.68           | 1.65        | 9.43             | 9.00        | 8.59       | 8.00        | 0.84       | 1.00        | 4.93    | 4.00        | 4.93                | -----                | 28 20   | 5023              |
| 5.70     | 1.76           | 1.65        | 8.56             | 9.00        | 7.92       | 8.00        | 0.64       | 1.00        | 4.21    | 4.00        | 4.21                | -----                | -----   | 4824              |
| 8.00     | 1.87           | 1.65        | 8.82             | 9.00        | *7.66      | 8.00        | 1.16       | 1.00        | 5.60    | 5.00        | 5.60                | -----                | 29 00   | 5176              |
| 8.07     | 1.68           | 1.65        | 13.48            | 13.00       | 12.42      | 12.00       | 1.06       | 1.00        | 2.27    | 2.00        | 2.27                | -----                | 36 00   | 4947              |
| 5.30     | 1.56           | 1.65        | 9.13             | 9.00        | *7.47      | 8.00        | 1.66       | 1.00        | *5.79   | 6.00        | 5.79                | -----                | 36 00   | 4706              |
| 8.00     | 1.59           | 1.65        | 8.94             | 9.00        | 7.88       | 8.00        | 1.06       | 1.00        | 4.53    | 4.00        | 4.53                | -----                | 36 00   | 4659              |
| 5.72     | 3.31           | 3.29        | 8.90             | 9.00        | 8.20       | 8.00        | 0.70       | 1.00        | 6.31    | 6.00        | 6.31                | -----                | 40 00   | 5141              |
| 6.40     | 2.42           | 2.47        | 9.44             | 9.00        | *7.60      | 8.00        | 1.84       | 1.00        | 4.55    | 4.00        | 4.55                | -----                | 35 00   | 5143              |
| 8.97     | 1.90           | 1.65        | 11.58            | 11.00       | 10.06      | 10.00       | 1.52       | 1.00        | 2.31    | 2.00        | 2.31                | -----                | 28 50   | 5081              |
| 10.70    | 1.66           | 1.65        | 10.61            | 11.00       | *9.59      | 10.00       | 1.02       | 1.00        | 2.16    | 2.00        | 2.16                | -----                | -----   | 4483              |
| 5.12     | 1.86           | 1.65        | 9.10             | 8.50        | 8.20       | 8.00        | 0.90       | 0.50        | 10.96   | 10.00       | 10.96               | -----                | 35 00   | 4843              |
| 7.61     | 1.75           | 1.65        | 8.62             | 8.50        | 8.14       | 8.00        | 0.48       | 0.50        | 5.01    | 5.00        | 5.01                | -----                | 23 00   | 4474              |
| 6.42     | 1.70           | 1.65        | 8.52             | 8.50        | 7.98       | 8.00        | 0.54       | 0.50        | 5.05    | 5.00        | 5.05                | -----                | 35 00   | 4563              |
| 6.65     | 1.81           | 1.65        | 8.55             | 8.50        | 7.81       | 8.00        | 0.74       | 0.50        | 5.43    | 5.00        | 5.43                | -----                | 35 00   | 5241              |
| 6.90     | 1.90           | 1.65        | 9.11             | 8.50        | 8.65       | 8.00        | 0.46       | 0.50        | 4.82    | 5.00        | 4.82                | -----                | 36 00   | 4877              |
| 7.30     | 1.69           | 1.65        | 8.37             | 8.50        | *7.73      | 8.00        | 0.64       | 0.50        | *9.70   | 10.00       | 9.70                | -----                | 38 00   | 4565              |
| 6.05     | 2.13           | 1.65        | 8.90             | 8.50        | 8.26       | 8.00        | 0.64       | 0.50        | 9.83    | 10.00       | 9.83                | -----                | 39 00   | 5038              |
| 5.67     | 1.87           | 1.65        | 9.61             | 8.50        | 8.47       | 8.00        | 1.14       | 0.56        | 10.82   | 10.00       | 10.82               | -----                | 36 00   | 5113              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number.   | Name of Manufacturer and Brand.                             | Sample Taken From—                                  |
|---|---|---|
| 5238  | Armour's (Big Crop Fertilizers) 2-8-10, -----               | N. J. Miller, Elk Lick, -----                       |
| 5243  | Armour's (Big Crop Fertilizers) 2-12-2, -----               | W. H. Dunlap, Jr., Canonsburg, -----                |
| 4710  | Armour's (Big Crop Fertilizers) 2-12-2, -----               | J. G. Jamieson Lumber Co., Tionesta, -----          |
| 4566  | Armour's (Big Crop Fertilizers) 2-16-2, -----               | Frank Douglass, Indiana, -----                      |
| 4803  | Armour's (Big Crop Fertilizers) 2-16-2, -----               | A. E. Woodruff & Son, Wysox, -----                  |
| 4475  | Armour's (Big Crop Fertilizers) 4-8-4, -----                | Wm. Divler, Brookville, -----                       |
| 4564  | Armour's (Big Crop Fertilizers) 4-8-4, -----                | Frank Douglass, Indiana, -----                      |
| 5242  | Armour's (Big Crop Fertilizers) 4-8-4, -----                | W. H. Dunlap, Jr., Canonsburg, -----                |
| 5305  | Armour's (Big Crop Fertilizers) 4-8-4, -----                | S. G. Seligman, Tamaqua, -----                      |
| 5259  | Armour's (Big Crop Fertilizers) Special Mix-<br>ture, ----- | N. J. Miller, Elk Lick, -----                       |
| 4743  | Armour's Tobacco Special Fertilizer, -----                  | J. H. Gehman, Denver, -----                         |
| 5112  | Armour's Tobacco Special Fertilizer, -----                  | J. T. King, Lawrenceville, -----                    |
| BAUGH & SONS COMPANY, PHILADEL-<br>PHIA, PA.  |   |   |
| 4571  | Baugh's Commercial Super Phosphate, -----                   | Farmers Exchange, Indiana, -----                    |
| 4628  | Baugh's Commercial Super Phosphate, -----                   | Fisher & Nolan, Malvern, -----                      |
| 5031  | Baugh's Commercial Super Phosphate, -----                   | F. D. Hartzells Sons Co., Chalfont, -----           |
| 5116  | Baugh's Commercial Super Phosphate, -----                   | Jacob Keeks Sons, Middlebury, -----                 |
| 4918  | Baugh's Complete Animal Base Fertilizer, --                 | H. B. Low & Son, Orangeville, -----                 |
| 4790  | Baugh's Corn and Oats Fertilizer, -----                     | Homer Decker, Bellefonte, -----                     |
| 4573  | Baugh's Corn and Oats Fertilizer, -----                     | Farmers Exchange, Indiana, -----                    |
| 4810  | Baugh's Corn and Oats Fertilizer, -----                     | Farmers & Consumers Commercial Union<br>Troy, ----- |
| 4809  | Baugh's Double Eagle Phosphate, -----                       | Farmers & Consumers Commercial Union<br>Troy, ----- |
| 4629  | Baugh's Double Eagle Phosphate, -----                       | Fisher & Nolan, Malvern, -----                      |
| 4925  | Baugh's Double Eagle Phosphate, -----                       | E. P. Wargo, Danville, -----                        |
| 5057  | Baugh's Fish, Bone and Potash, -----                        | A. F. Stutzman & Son, Johnstown, -----              |
| 4924  | Baugh's Peruvian Guano Substitute, -----                    | E. P. Wargo, Danville, -----                        |
| 4514  | Baugh's Potato and Truck Special, -----                     | F. T. Baker, Lewisburg, -----                       |
| 4545  | Baugh's Potato and Truck Special, -----                     | Farmers Elevator Co., Mercersburg, -----            |
| 4627  | Baugh's Potato and Truck Special, -----                     | Fisher & Nolan, Malvern, -----                      |
| 5219  | Baugh's Potato and Truck Special, -----                     | Myersdale Milling Co., Myersdale, -----             |
| 4515  | Baugh's Special Potato Manure, -----                        | F. T. Baker, Lewisburg, -----                       |
| 4569  | Baugh's Special Potato Manure, -----                        | Farmers Exchange, Indiana, -----                    |
| 5247  | Baugh's Special Potato Manure, -----                        | A. C. McClure, Burgettstown, -----                  |
| 4590  | Baugh's Special Potato Manure, -----                        | S. F. Peckman, Williamston, -----                   |
| BOWKER FERTILIZER COMPANY, SUB-<br>SIDIARY OF THE AMERICAN AGRI-<br>CULTURAL CHEMICAL CO., NEW<br>YORK, N. Y. |   |   |
| 5202  | Bowker's Corn and Wheat Guano, -----                        | John B. Dymond, Waymarth, -----                     |
| 5230  | Bowker's Corn and Wheat Guano, -----                        | Taylor Pepper, Frederickstown, -----                |
| 4655  | Bowker's Corn and Wheat Guano, -----                        | Charles Skeen, Sanatoga, -----                      |
| 5203  | Bowker's Special Crop Grower, -----                         | John B. Dymond, Waymarth, -----                     |
| 4838  | Bowker's Special Crop Grower, -----                         | Jos. Robinson, Tunkhannock, -----                   |
| 4654  | Bowker's Special Crop Grower, -----                         | Charles Skeen, Sanatoga, -----                      |
| 4847  | Stockbridge Market Garden Manure, -----                     | A. Bolt, Great Bend, -----                          |
| CENTRAL CHEMICAL CO., HAGERS-<br>TOWN, MD.  |   |   |
| 5200  | Gro-All Canner's Special, -----                             | N. J. Miller, Elk Lick, -----                       |
| 5257  | Gro-All Empire, -----                                       | Lloyd Hay, Myersdale, -----                         |
| 5261  | Gro-All Empire, -----                                       | N. J. Miller, Elk Lick, -----                       |
| 4894  | Gro-All Excelsior, -----                                    | J. F. Fogleman, Pennsdale, -----                    |
| 5093  | Gro-All Excelsior, -----                                    | J. E. Baker, Trout Run, -----                       |
| 4895  | Gro-All Grain and Grass Grower, -----                       | J. F. Fogleman, Pennsdale, -----                    |
| 5042  | Gro-All Potato Special, -----                               | M. R. Brumbaugh, Martinsburg, -----                 |
| 4897  | Gro-All Potato Special, -----                               | J. F. Fogleman, Pennsdale, -----                    |
| 4541  | Gro-All Potato Special, -----                               | Mercersburg Elevator Co., Mercersburg, -----        |
| 5278  | Gro-All Super Fish, -----                                   | Mahler Hohn, Lehighton, -----                       |
| 4540  | Gro-All Super Fish, -----                                   | Mercersburg Elevator Co., Mercersburg, -----        |



## FERTILIZERS—Continued.

| FERTILIZERS—Continued. |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
|------------------------|------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
| Moisture.              | NITRO-GEN. |             | PHOSPHORIO ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|                        | Found.     | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as Muriate. | Present as Sulphate. |  |                   |
|                        |            |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
| %                      | %          | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 6.62                   | 1.95       | 1.65        | 9.54             | 8.50        | 8.44       | 8.00        | 1.10       | 0.50        | *8.00   | 10.00       | 8.00                | -----                | 38 00  | 5258              |
| 4.34                   | 1.76       | 1.65        | 12.05            | 12.50       | *11.51     | 12.00       | 0.54       | 0.50        | 2.24    | 2.00        | 2.24                | -----                | 30 00  | 5243              |
| 7.56                   | 1.70       | 1.65        | 12.18            | 12.50       | *11.66     | 12.00       | 0.52       | 0.50        | 2.35    | 2.00        | 2.35                | -----                | 38 00  | 4710              |
| 10.00                  | 1.65       | 1.65        | 15.82            | 16.50       | *15.42     | 16.00       | 0.40       | 0.50        | 2.26    | 2.00        | 2.26                | -----                | 39 00  | 4566              |
| 4.17                   | 2.05       | 1.65        | 16.21            | 16.50       | *15.73     | 16.00       | 0.48       | 0.50        | 2.57    | 2.00        | 2.57                | -----                | 37 00  | 4803              |
| 7.55                   | 3.27       | 3.29        | 8.67             | 8.50        | 8.13       | 8.00        | 0.54       | 0.50        | 4.26    | 4.00        | 4.26                | -----                | -----  | 4475              |
| 7.45                   | 3.12       | 3.29        | 8.64             | 8.50        | 8.28       | 8.00        | 0.36       | 0.50        | 4.05    | 4.00        | 4.05                | -----                | 41.50  | 4564              |
| 7.42                   | 3.12       | 3.29        | 8.74             | 8.50        | *7.63      | 8.00        | 1.06       | 0.50        | 4.35    | 4.00        | 4.35                | -----                | 42 00  | 5242              |
| 6.70                   | 3.33       | 3.29        | 9.21             | 8.50        | 8.11       | 8.00        | 1.10       | 0.50        | 4.65    | 4.00        | 4.05                | -----                | -----  | 5305              |
| 4.18                   | 1.97       | 1.65        | 10.97            | 9.50        | *8.58      | 9.00        | 2.39       | 0.50        | 3.54    | 3.00        | 3.54                | -----                | 33 00  | 5259              |
| 5.18                   | *3.74      | 4.11        | 9.11             | 8.50        | 7.89       | 8.00        | 1.25       | 0.50        | *4.54   | 5.00        | 0.60                | 3.94                 | 40 00  | 4743              |
| 5.06                   | 4.13       | 4.11        | 9.36             | 8.50        | 8.26       | 8.00        | 1.10       | 0.50        | 5.01    | 5.00        | 0.90                | 4.11                 | 44 00  | 5112              |
| 7.30                   | 1.69       | 1.65        | 9.76             | 8.00        | 8.62       | 8.00        | 1.14       | -----       | *9.78   | 10.00       | 9.78                | -----                | 35 50  | 4571              |
| 7.05                   | 1.68       | 1.65        | 8.57             | 8.00        | 7.96       | 8.00        | 0.61       | -----       | 10.19   | 10.00       | 10.19               | -----                | 35 00  | 4628              |
| 2.60                   | 1.73       | 1.65        | 8.95             | 8.00        | 8.29       | 8.00        | 0.66       | -----       | 10.38   | 10.00       | 10.38               | -----                | 37 00  | 5021              |
| 6.10                   | 1.76       | 1.65        | 8.65             | 8.00        | 8.11       | 8.00        | 0.54       | -----       | 10.62   | 10.00       | 10.62               | -----                | 35 00  | 5116              |
| 6.24                   | 2.10       | 1.65        | 8.80             | 8.00        | 7.96       | 8.00        | 0.84       | -----       | 5.77    | 5.00        | 5.77                | -----                | 30 00  | 4918              |
| 9.43                   | 1.63       | 1.65        | 12.88            | 12.00       | 12.14      | 12.00       | 0.74       | -----       | 2.28    | 2.00        | 2.28                | -----                | 32 00  | 4790              |
| 9.78                   | 1.68       | 1.65        | 12.85            | 12.00       | 12.11      | 12.00       | 0.74       | -----       | 2.22    | 2.00        | 2.22                | -----                | 32 85  | 4573              |
| 10.35                  | 1.75       | 1.65        | 12.70            | 12.00       | *11.54     | 12.00       | 1.16       | -----       | 2.23    | 2.00        | 2.23                | -----                | 32 00  | 4810              |
| 8.72                   | 1.85       | 1.65        | 11.23            | 10.00       | 10.11      | 10.00       | 1.12       | -----       | 4.35    | 4.00        | 4.35                | -----                | 32 00  | 4809              |
| 9.00                   | 1.73       | 1.65        | 11.43            | 10.00       | 10.33      | 10.00       | 1.10       | -----       | 4.69    | 4.00        | 4.69                | -----                | 32 00  | 4629              |
| 4.77                   | 1.93       | 1.65        | 11.48            | 10.00       | 10.28      | 10.00       | 1.20       | -----       | 4.77    | 4.00        | 4.77                | -----                | 33 00  | 4925              |
| 6.35                   | 3.23       | 3.30        | 9.44             | 8.00        | 8.36       | 8.00        | 1.08       | -----       | 4.16    | 4.00        | 4.16                | -----                | 42 00  | 5057              |
| 5.50                   | 4.20       | 4.12        | 6.59             | 6.00        | 6.05       | 6.00        | 0.54       | -----       | 5.46    | 5.00        | 5.46                | -----                | 40 00  | 4924              |
| 7.61                   | 3.25       | 3.30        | 9.22             | 8.00        | 8.50       | 8.00        | 0.72       | -----       | 6.73    | 6.00        | 6.73                | -----                | 42 00  | 4514              |
| 7.21                   | *2.82      | 3.30        | 9.44             | 8.00        | 8.54       | 8.00        | 0.90       | -----       | 6.22    | 6.00        | 6.22                | -----                | 38 00  | 4545              |
| 8.89                   | 3.36       | 3.30        | 8.66             | 8.00        | 7.96       | 8.00        | 0.70       | -----       | 6.09    | 6.00        | 6.09                | -----                | 39 00  | 4627              |
| 6.90                   | 3.24       | 3.30        | 9.48             | 8.00        | 8.74       | 8.00        | 0.74       | -----       | 6.14    | 6.00        | 6.14                | -----                | 34 00  | 5219              |
| 7.67                   | 1.65       | 1.65        | 8.83             | 8.00        | 8.06       | 8.00        | 0.82       | -----       | 5.20    | 5.00        | 5.20                | -----                | 34 00  | 4515              |
| 6.48                   | 1.81       | 1.65        | 8.89             | 8.80        | 8.13       | 8.00        | 0.76       | -----       | 5.50    | 5.00        | 5.50                | -----                | 31 85  | 4569              |
| 5.25                   | 1.84       | 1.65        | 9.36             | 8.00        | 7.90       | 8.00        | 1.46       | -----       | 5.74    | 5.00        | 5.74                | -----                | 40 00  | 5247              |
| 6.57                   | 1.69       | 1.65        | 8.80             | 8.00        | 8.08       | 8.00        | 0.72       | -----       | 4.92    | 5.00        | 4.92                | -----                | 32.00  | 4590              |
| 5.19                   | 2.00       | 1.65        | 8.67             | 9.00        | 7.89       | 8.00        | 0.78       | 1.00        | 4.40    | 4.00        | 4.40                | -----                | 35 25  | 5202              |
| 1.83                   | 1.86       | 1.65        | 9.61             | 9.00        | 8.77       | 8.00        | 0.84       | 1.00        | 4.29    | 4.00        | 4.29                | -----                | 33 25  | 5230              |
| 6.15                   | 1.61       | 1.65        | 8.69             | 9.00        | 8.01       | 8.00        | 0.68       | 1.00        | 4.51    | 4.00        | 4.51                | -----                | 26 00  | 4655              |
| 3.80                   | 1.88       | 1.65        | 8.90             | 9.00        | 8.28       | 8.00        | 0.62       | 1.00        | 10.62   | 10.00       | 10.62               | -----                | 40 05  | 5203              |
| 7.03                   | 1.78       | 1.65        | 8.83             | 9.00        | 8.44       | 8.00        | 0.44       | 1.00        | 10.06   | 10.00       | 10.06               | -----                | 35 00  | 4838              |
| 6.85                   | 1.70       | 1.65        | 8.71             | 9.00        | 8.05       | 8.00        | 0.66       | 1.00        | 10.86   | 10.00       | 10.86               | -----                | 35 00  | 4654              |
| 5.32                   | 3.32       | 3.29        | 9.22             | 9.00        | 8.24       | 8.00        | 0.98       | 1.00        | 4.24    | 4.00        | 4.24                | -----                | 40 00  | 4847              |
| 4.55                   | 1.74       | 1.65        | 8.41             | 8.50        | 8.15       | 8.00        | 0.26       | 0.50        | *4.74   | 5.00        | 4.74                | -----                | 33 00  | 5260              |
| 3.25                   | 1.89       | 1.65        | 8.76             | 8.50        | 8.36       | 8.00        | 0.40       | 0.50        | 10.40   | 10.00       | 10.40               | -----                | -----  | 5257              |
| 0.70                   | 1.87       | 1.65        | 11.84            | 8.50        | 11.40      | 8.00        | 0.44       | 0.50        | *3.28   | 10.00       | 3.28                | -----                | 36 60  | 5261              |
| 5.60                   | 1.82       | 1.65        | 8.61             | 8.50        | 8.09       | 8.00        | 0.52       | 0.50        | 4.61    | 4.00        | 4.61                | -----                | -----  | 4894              |
| 3.31                   | 1.83       | 1.65        | 8.58             | 8.50        | 8.14       | 8.00        | 0.44       | 0.50        | 4.54    | 4.00        | 4.54                | -----                | -----  | 5093              |
| 7.81                   | 1.75       | 1.65        | 12.18            | 12.50       | *11.73     | 12.00       | 0.45       | 0.50        | 2.71    | 2.00        | 2.71                | -----                | -----  | 4895              |
| 2.65                   | 3.28       | 3.29        | 8.81             | 8.50        | 8.23       | 8.00        | 0.48       | 0.50        | 7.02    | 7.00        | 7.02                | -----                | -----  | 5042              |
| 6.15                   | *2.03      | 3.29        | 9.02             | 8.50        | 8.62       | 8.00        | 0.40       | 0.50        | 7.20    | 7.00        | 7.20                | -----                | -----  | 4897              |
| 5.61                   | 3.24       | 3.29        | 8.55             | 8.50        | 8.05       | 8.00        | 0.50       | 0.50        | 8.27    | 7.00        | 8.27                | -----                | 40 00  | 4541              |
| 4.85                   | 2.00       | 1.65        | 12.67            | 12.50       | 11.97      | 12.00       | 0.70       | 0.50        | 6.30    | 6.00        | 6.30                | -----                | -----  | 5278              |
| 9.10                   | 1.46       | 1.65        | 12.53            | 12.50       | 12.19      | 12.00       | 0.34       | 0.50        | 6.24    | 6.00        | 6.24                | -----                | 37 00  | 4540              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number. | Name of Manufacturer and Brand.   |  | Sample Taken From—                     |  |
|-------------------|---|--|--|--|
|                   |   |  |  |  |
|                   | THE COE-MORTIMER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.     |  |  |  |
| 4505              | E. Frank Coe's Celebrated Special Potato Fertilizer.  |  | Coburn Grain & Creamery Co., Coburn,   |  |
| 4844              | E. Frank Coe's Celebrated Special Potato Fertilizer.  |  | A. M. Sommers, New Milford, -----      |  |
| 4846              | E. Frank Coe's Corn King, -----   |  | A. M. Sommers, New Milford, -----      |  |
| 4665              | E. Frank Coe's Extra Potash Fertilizer, ---   |  | H. R. Longenecker, Rheems, -----       |  |
| 4304              | E. Frank Coe's Gold Brand Excelsior Guano   |  | H. R. Longenecker, Rheems, -----       |  |
| 6120              | E. Frank Coe's Gold Brand Excelsior Guano   |  | E. E. White, Edella, -----             |  |
|                   | THE CONSUMERS CHEMICAL CORPORATION, AFFILIATED WITH VIRGINIA-CAROLINA CHEMICAL CO., NEW YORK, N. Y. |  |  |  |
| 5012              | Commander Brand, -----  |  | J. O. Dewalt, Bethlehem, -----         |  |
| 4800              | Commander Brand, -----  |  | E. H. Johnson, Ulster, -----           |  |
|                   | THE JAS. G. DOWNWARD CO., COATESVILLE PA.   |  |  |  |
| 5167              | Pioneer Phosphate, -----  |  | Morris S. Bailey, Malvern, -----       |  |
|                   | DUMONT FERTILIZER CO., INC., PHILADELPHIA, PA.  |  |  |  |
| 5004              | Dumont's Four Eight and Five, -----   |  | E. J. Houck & Son, Bangor, -----       |  |
| 4647              | Dumont's Four Eight and Five, -----   |  | Russell James, Warwick, -----          |  |
| 5277              | Dumont's Four Eight and Five, -----   |  | Victor Solt, Leighton, -----           |  |
| 4646              | Dumont's One eight and Five, -----  |  | Russell James, Warwick, -----          |  |
| 5165              | Dumont's Two Eight and Five, -----  |  | Harry Wilson, Frazer, -----            |  |
| 4754              | Dumont's Two Eight and Ten, -----   |  | Burkholder & Hooper, New Holland, ---  |  |
| 4649              | Dumont's Two Eight and Ten, -----   |  | Russell James, Warwick, -----          |  |
| 4753              | Dumont's Two Twelve and Four, -----   |  | Burkholder & Hooper, New Holland, ---  |  |
|                   | ERIE REDUCTION CO., ERIE PA.  |  |  |  |
| 4938              | Erie Potato and Truck Special, -----  |  | Simon Eisman, Meadville, -----         |  |
|                   | EUREKA CHEMICAL COMPANY, BALTIMORE, MD.   |  |  |  |
| 4857              | Eureka 2-8-5, -----   |  | W. H. Nesbit, McConnellsburg, -----    |  |
| 4859              | Eureka High Grade Truckee, -----  |  | W. H. Nesbit, McConnellsburg, -----    |  |
|                   | FARMERS FERTILIZER WORKS, ELIZABETHTWON, PA.  |  |  |  |
| 4610              | Farmers Best Yet, -----   |  | Aaron Heisy, Annville, -----           |  |
| 4758              | Farmers Best Yet, -----   |  | B. F. Horting, Newport, -----          |  |
|                   | GRIFFITH & BOYD CO., BALTIMORE, MD.   |  |  |  |
| 4554              | Griffith & Boyd Co.'s Farmers Potato Manure.  |  | Dayton Milling Co., Dayton, -----      |  |
| 5071              | Griffith & Boyd Co.'s Farmers Potato Manure.  |  | C. A. Geist, Warriors Mark, -----      |  |
| 4601              | Griffith & Boyd Co.'s Farmers Potato Manure.  |  | John S. Hess, Lititz, -----            |  |
| 5251              | Griffith & Boyd Co.'s Farmers Potato Manure.  |  | J. F. Hogsett & Son, Uniontown, -----  |  |
| 4995              | Griffith & Boyd Co.'s Farmers Potato Manure.  |  | Geo. A. Wolf & Sons, Mount Wolf, ----- |  |
| 4752              | Griffith & Boyd Co.'s Gilt Edge Crop Guano.   |  | Burkholder & Hooper, New Holland, ---  |  |
| 4602              | Griffith & Boyd Co.'s High Grade Fish and Potash Mixture.   |  | John S. Hess, Lititz, -----            |  |

## FERTILIZERS—Continued.

| Moisture. | NITRO-GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
|           | Found.     | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as Muriate. | Present as Sulphate. |  |                   |
|           |            |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
| %         | %          | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 8.50      | 3.15       | 3.29        | 8.94             | 9.00        | 8.18       | 8.00        | 0.76       | 1.00        | 4.18    | 4.00        | 4.18                | -----                | 39 00  | 4505              |
| 6.13      | 3.25       | 3.29        | 8.78             | 9.00        | 8.34       | 8.00        | 0.44       | 1.00        | 4.85    | 4.00        | 4.85                | -----                | 41 00  | 4844              |
| 5.92      | 2.29       | 2.47        | 9.44             | 10.00       | *8.70      | 9.00        | 0.74       | 1.00        | 3.12    | 2.00        | 3.12                | -----                | -----  | 4846              |
| 8.39      | 1.68       | 1.65        | 9.52             | 9.00        | 8.02       | 8.00        | 1.50       | 1.00        | *9.48   | 10.00       | 9.48                | -----                | 35 00  | 4605              |
| 6.74      | 2.40       | 2.47        | 9.03             | 9.00        | 8.20       | 8.00        | 0.83       | 1.00        | 4.10    | 4.00        | 4.10                | -----                | 35 00  | 4604              |
| 6.75      | 2.53       | 2.47        | 9.01             | 9.00        | 8.27       | 8.00        | 0.74       | 1.00        | 4.18    | 4.00        | 4.18                | -----                | 34 10  | 5120              |
| 7.30      | 2.00       | 1.65        | 9.75             | 9.00        | 8.81       | 8.00        | 0.94       | 1.00        | 10.47   | 10.00       | 10.47               | -----                | 34 00  | 5012              |
| 5.82      | 1.87       | 1.65        | 9.27             | 9.00        | 8.03       | 8.00        | 1.24       | 1.00        | 11.85   | 10.00       | 11.85               | -----                | 39 00  | 4800              |
| 5.60      | 2.40       | 2.45        | 8.93             | 8.00        | 7.39       | 7.00        | 1.54       | 1.00        | 11.99   | 10.00       | 11.99               | -----                | 38 00  | 5167              |
| 6.15      | *2.35      | 3.29        | 8.46             | 8.50        | 7.86       | 8.00        | 0.60       | 0.50        | 6.07    | 5.00        | 6.07                | -----                | 38 00  | 5004              |
| 7.57      | *2.87      | 3.29        | 9.16             | 8.50        | 8.44       | 8.00        | 0.72       | 0.50        | *4.68   | 5.00        | 4.68                | -----                | 39 00  | 4647              |
| 4.25      | 3.36       | 3.29        | 8.98             | 8.50        | 8.34       | 8.00        | 0.64       | 0.50        | *4.66   | 5.00        | 4.66                | -----                | -----  | 5277              |
| 7.00      | 0.83       | 0.83        | 8.52             | 8.50        | 7.82       | 8.00        | 0.70       | 0.50        | 5.46    | 5.00        | 5.46                | -----                | 28 00  | 4646              |
| 5.40      | 1.60       | 1.65        | 8.84             | 8.50        | 8.10       | 8.00        | 0.74       | 0.50        | *4.77   | 5.00        | 4.77                | -----                | 34 00  | 5165              |
| 5.31      | 1.81       | 1.65        | 8.93             | 8.50        | 8.37       | 8.00        | 0.56       | 0.50        | *9.00   | 10.00       | 9.00                | -----                | 33 00  | 4754              |
| 5.95      | 1.65       | 1.65        | 9.17             | 8.56        | 8.77       | 8.00        | 0.40       | 0 50        | 9.42    | 10.00       | *9.42               | -----                | 35 25  | 4649              |
| 5.99      | *1.33      | 1.65        | 10.93            | 12.50       | *10.27     | 12.00       | 0.66       | 0.50        | 6.16    | 4.00        | 6.16                | -----                | 31 50  | 4733              |
| 4.33      | 1.64       | 1.65        | 11.35            | 10.00       | 8.83       | 8.00        | 2.52       | 2.00        | 5.05    | 5.00        | 5.05                | -----                | 32 00  | 4938              |
| 3.35      | 1.70       | 1.65        | 9.12             | 8.50        | 8.40       | 8.00        | 0.72       | 0.50        | 6.33    | 5.00        | 6.33                | -----                | 30.65  | 4857              |
| 4.10      | 1.67       | 1.65        | 9.44             | 8.50        | *7.80      | 8.00        | 1.64       | 0.50        | 10.91   | 10.00       | 10.91               | -----                | 34 35  | 4859              |
| 6.13      | 1.59       | 1.65        | 10.12            | 9.00        | 9.66       | 8.00        | 0.46       | 1.00        | 10.17   | 10.00       | 10.17               | -----                | 35.50  | 4610              |
| 4.35      | *1.42      | 1.65        | 9.73             | 9.00        | 9.19       | 8.00        | 0.54       | 1.00        | 10.63   | 10.00       | 10.63               | -----                | 32 25  | 4753              |
| 8.40      | 0.87       | 0.82        | 9.40             | 9.00        | 8.82       | 8.00        | 0.58       | 1.00        | 5.92    | 6.00        | 5.92                | -----                | 28.90  | 4554              |
| 5.40      | 1.00       | 0.82        | 9.35             | 9.00        | 8.67       | 8.00        | 0.68       | 1.00        | 6.57    | 6.00        | 6.57                | -----                | -----  | 5071              |
| 7.15      | 0.88       | 0.82        | 9.13             | 9.00        | 8.49       | 8.00        | 0.64       | 1.00        | 6.48    | 6.00        | 6.48                | -----                | 33 00  | 4601              |
| 7.30      | 0.98       | 0.82        | 9.10             | 9.00        | 8.46       | 8.00        | 0.64       | 1.00        | 6.31    | 6.00        | 6.31                | -----                | 32 00  | 5251              |
| 5.50      | 1.12       | 0.82        | 8.65             | 9.00        | 8.13       | 8.00        | 0.52       | 1.00        | 6.49    | 6.00        | 6.49                | -----                | 27 00  | 4995              |
| 7.08      | 1.73       | 1.65        | 9.30             | 9.00        | 8.54       | 8.00        | 0.76       | 1.00        | *9.10   | 10.00       | 9.60                | -----                | 32 00  | 4752              |
| 9.09      | 1.79       | 1.65        | 12.21            | 13.00       | 11.95      | 12.00       | 0.26       | 1.00        | *7.40   | 8.00        | 1.10                | 6.30                 | 33 00  | 4602              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number. | Name of Manufacturer and Brand.  |  | Sample Taken From—                                    |  |
|-------------------|--|--|---|--|
|                   |  |  |   |  |
| 4791              | Griffith & Boyd Co.'s Special Guano, -----   |  | H. M. Smith, Bellefonte, -----                        |  |
| 4600              | Griffith & Boyd Co.'s Special Potato Guano, -----  |  | John S. Hess, Lititz, -----                           |  |
| 5240              | Griffith & Boyd Co.'s Special Potato Guano, -----  |  | Peacock Brothers, Houston, -----                      |  |
| 4595              | Griffith & Boyd Co.'s Tobacco and Veget-<br>able Grower. -----   |  | A. L. Hartman, Schaffersstown, -----                  |  |
|                   | S. M. HESS & BROTHER, INC., SUB-<br>SIDIARY OF THE AMERICAN AGRI-<br>CULTURAL CHEMICAL CO., NEW<br>YORK. ----- |  |   |  |
| 5276              | Farmers Potato and Truck Grower, -----   |  | Geo. Schweitzer, Lehighton, -----                     |  |
| 4510              | Potato Crop Grower, -----  |  | J. R. Iddings, Mifflinburg, -----                     |  |
|                   | THE HUBBARD FERTILIZER COMPANY,<br>BALTIMORE, MD. -----  |  |   |  |
| 4950              | Hubbard's Complete Fertilizer, -----   |  | Wildrick & Wildrick, Hartstown, -----                 |  |
| 4932              | Hubbard's Jersey Trucker, -----  |  | Cochranon Milling Co., Cochranon, -----               |  |
| 5006              | Hubbard's Jersey Trucker, -----  |  | H. L. Orr, Tyrone, -----                              |  |
| 4467              | Hubbard's Jersey Trucker, -----  |  | Reynoldsville Hardware Co., Reynolds-<br>ville. ----- |  |
| 5182              | Hubbard's Money Maker Fertilizer, -----  |  | Edw. W. Rupert, Oxford, -----                         |  |
| 4985              | Hubbard's Money Maker Fertilizer, -----  |  | Seltzer Brothers, Orwigsburg, -----                   |  |
| 5068              | Hubbard's Noxall Guano, -----  |  | H. L. Orr, Tyrone, -----                              |  |
|                   | THE JARECKI CHEMICAL CO.,<br>(ARMOUR OWNED), SANDUSKY, OHIO. -----   |  |   |  |
| 5029              | Jarecki's Crop Special 2-8-5, -----  |  | Meyer Milling Co., Clearfield, -----                  |  |
| 4694              | Jarecki's Crop Special 2-8-5, -----  |  | The Smith Brothers Co., Ridgway, -----                |  |
| 4558              | Jarecki's 2-16-2 Fertilizer, -----   |  | Wm. Gates Estate, Kittanning, -----                   |  |
| 4693              | Jarecki's 3-8-6 Fertilizer, -----  |  | Smith Brothers Co., Ridgway, -----                    |  |
| 4951              | Jarecki's High Grade Potato 2-8-10, -----  |  | J. H. Duvall, Guys Mills, -----                       |  |
| 4795              | Jarecki's High Grade Potato 2-8-10, -----  |  | L. E. Hess, Philipsburg, -----                        |  |
| 5017              | Jarecki's High Grade Potato 2-8-10, -----  |  | J. J. Shoemaker, Walnutport, -----                    |  |
|                   | KEYSTONE BONE FERTILIZER CO.,<br>PHILADELPHIA, PA. -----   |  |   |  |
| 5287              | Keystone Blue Ribbon Potato Manure, -----  |  | P. K. Smith, Nescopeck, -----                         |  |
| 5301              | Keystone Corn and Cereal Grower, -----   |  | John Kunkle, Mahanoy City, -----                      |  |
| 5270              | Keystone Ideal Potato and Tobacco Manure, -----  |  | Geo. Gunter, Lehighton, -----                         |  |
| 5303              | Keystone Mercer County Potato Special, -----   |  | John Kunkle, Mahanoy City, -----                      |  |
| 5302              | Keystone Royal Corn and Potato Manure<br>Revised. -----  |  | John Kunkle, Mahanoy City, -----                      |  |
| 4680              | Keystone Superior Super-Phosphate and Pot-<br>ash. -----   |  | E. A. Slagle, Paxinos, -----                          |  |
|                   | THE KEYSTONE GRANGE EXCHANGE,<br>MANSFIELD, PA. -----  |  |   |  |
| 4529              | Granger's Prize, -----   |  | E. E. Blackburn, Cessna, -----                        |  |
|                   | LANCASTER BONE FERTILIZER COM-<br>PANY, LANCASTER, PA. -----   |  |   |  |
| 4641              | Farmers Favorite, -----  |  | Henry S. Zook, Elverson, -----                        |  |
| 4640              | Potato and Vegetable Manure, -----   |  | Henry S. Zook, Elverson, -----                        |  |
| 4642              | Royal Fish Compound, -----   |  | Henry S. Zook, Elverson, -----                        |  |
|                   | THE LANCASTER CHEMICAL COM-<br>PANY, LANCASTER, PA. -----  |  |   |  |
| 4637              | No. 19 Potato Special, -----   |  | A. Willis Gill, Atglen, -----                         |  |
|                   | LEBANON FERTILIZER WORKS, LEB-<br>ANON, PA. -----  |  |   |  |
| 5015              | Levan's Crown Jewel 2-8-5, -----   |  | M. S. Rosenberger, Milford Square, -----              |  |
| 4884              | Levan's Crown Jewel 2-8-5, -----   |  | Soloman & Waltz, Antos Fort, -----                    |  |
| 4973              | Levan's General Crop Grower 2-16-2, -----  |  | I. E. Artz, Hegins, -----                             |  |



## FERTILIZERS—Continued.

| Moisture. | NITRO-GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
|           | Found.     | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as sulphate. |  |                   |
|           |            |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
| %         | %          | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 5.34      | 1.84       | 1.65        | 8.50             | 9.00        | 7.96       | 8.00        | 0.54       | 1.00        | 5.62    | 5.00        | 5.62                | -----                | 28 60  | 4791              |
| 7.90      | 3.41       | 3.29        | 9.50             | 9.00        | 9.02       | 8.00        | 0.48       | 1.00        | 6.13    | 6.00        | 6.13                | -----                | 35 20  | 4600              |
| 6.07      | 3.20       | 3.20        | 8.43             | 9.00        | 7.93       | 8.00        | 0.50       | 1.00        | *5.55   | 6.00        | 5.55                | -----                | 45 00  | 5240              |
| 7.10      | 2.73       | 2.47        | 8.87             | 9.00        | 8.39       | 8.00        | 0.48       | 1.00        | 3.69    | 3.00        | 3.09                | -----                | -----  | 4505              |
|           |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| 4.14      | *3.00      | 3.29        | 9.07             | 9.00        | 8.31       | 8.00        | 0.76       | 1.60        | 3.60    | 3.00        | 3.60                | -----                | 36 00  | 5276              |
| 7.33      | 1.54       | 1.65        | 8.94             | 9.00        | 8.02       | 8.00        | 0.92       | 1.00        | 4.08    | 4.00        | 4.08                | -----                | 29 00  | 4510              |
|           |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| 6.85      | 2.28       | 1.64        | 13.32            | 13.00       | 12.08      | 12.00       | 1.24       | 1.00        | 2.38    | 2.00        | 2.38                | -----                | 34 00  | 4950              |
| 9.05      | 1.80       | 1.64        | 9.53             | 9.00        | 8.13       | 8.00        | 1.40       | 1.00        | 10.22   | 10.00       | 10.22               | -----                | 35 80  | 4932              |
| 6.40      | 2.16       | 1.64        | 9.39             | 9.00        | 7.94       | 8.00        | 1.45       | 1.00        | 9.93    | 10.00       | 9.93                | -----                | 32 00  | 5006              |
| 10.40     | 1.75       | 1.64        | 9.86             | 9.00        | 8.42       | 8.00        | 1.44       | 1.00        | *9.44   | 10.00       | 9.44                | -----                | 40 00  | 4467              |
|           |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| 5.05      | 1.69       | 1.64        | 9.61             | 9.00        | 7.93       | 8.00        | 1.68       | 1.00        | 5.66    | 5.00        | 5.66                | -----                | 28 00  | 5182              |
| 6.42      | 1.74       | 1.65        | 10.23            | 9.00        | 8.33       | 8.00        | 1.90       | 1.00        | 5.38    | 5.00        | 5.38                | -----                | 30 00  | 4935              |
| 6.83      | 3.12       | 3.28        | 9.87             | 9.00        | 8.17       | 8.00        | 1.70       | 1.00        | 4.72    | 4.00        | 4.72                | -----                | -----  | 5068              |
|           |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| 3.80      | 1.89       | 1.65        | 8.87             | 8.50        | 8.21       | 8.00        | 0.66       | 0.50        | 5.30    | 5.00        | 5.30                | -----                | 34 00  | 5029              |
| 4.57      | 1.63       | 1.65        | 8.57             | 8.50        | 8.03       | 8.00        | 0.54       | 0.50        | *4.40   | 5.00        | 4.40                | -----                | 40 00  | 4694              |
| 8.91      | 1.74       | 1.65        | 15.88            | 16.50       | *15.42     | 16.00       | 0.46       | 0.50        | 2.35    | 2.00        | 2.35                | -----                | 38 50  | 4559              |
| 7.05      | 2.75       | 2.47        | 8.19             | 8.50        | *7.65      | 8.00        | 0.54       | 0.50        | 6.44    | 6.00        | 6.44                | -----                | 45 00  | 4693              |
| 8.79      | 1.79       | 1.65        | 10.88            | 8.50        | 9.00       | 8.00        | 1.88       | 0.50        | 10.27   | 10.00       | 10.27               | -----                | 36 85  | 4951              |
| 4.93      | 1.63       | 1.65        | 8.18             | 8.50        | *7.70      | 8.00        | 0.48       | 0.50        | 10.45   | 10.00       | 10.45               | -----                | 36 00  | 4795              |
| 5.17      | 1.69       | 1.65        | 8.53             | 8.50        | *7.65      | 8.00        | 0.88       | 0.50        | 10.96   | 10.00       | 10.96               | -----                | 30 05  | 5017              |
|           |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| 5.95      | 3.45       | 3.28        | 9.67             | 9.00        | 7.99       | 8.00        | 1.68       | 1.00        | 6.45    | 6.00        | 6.45                | -----                | 33 00  | 5287              |
| 6.96      | 1.73       | 1.65        | 13.48            | 13.00       | *10.44     | 12.00       | 3.04       | 1.00        | 4.97    | 4.00        | 4.97                | -----                | 31 00  | 5301              |
| 6.50      | 2.00       | 1.64        | 8.81             | 9.00        | *7.70      | 8.00        | 1.14       | 1.00        | 10.76   | 10.00       | 10.76               | -----                | -----  | 5270              |
| 7.13      | *3.00      | 3.28        | 9.71             | 9.00        | *7.63      | 8.00        | 2.08       | 1.00        | 5.07    | 4.00        | 5.07                | -----                | 34 50  | 5303              |
| 5.75      | *1.41      | 1.64        | 8.99             | 9.00        | 8.03       | 8.00        | 0.96       | 1.00        | 5.10    | 4.00        | 5.10                | -----                | -----  | 5302              |
|           |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| 8.68      | 0.92       | 0.82        | 9.13             | 9.00        | 8.07       | 8.00        | 1.06       | 1.00        | 6.95    | 6.00        | 6.95                | -----                | 36 00  | 4680              |
|           |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| 7.41      | 1.81       | 1.65        | 8.90             | 8.00        | 8.18       | 8.00        | 0.72       | -----       | *4.71   | 5.00        | 4.71                | -----                | 29 45  | 4529              |
|           |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| 6.20      | 0.89       | 0.82        | 9.76             | 10.00       | 9.20       | 9.00        | 0.56       | 1.00        | 5.12    | 5.00        | 5.12                | -----                | 30 40  | 4641              |
| 5.10      | 1.47       | 1.64        | 8.90             | 9.00        | 8.40       | 8.00        | 0.50       | 1.00        | 10.70   | 10.00       | 10.70               | -----                | 35 62  | 4640              |
| 7.54      | 1.56       | 1.64        | 8.97             | 9.00        | 8.29       | 8.00        | 0.68       | 1.00        | 4.50    | 4.00        | 4.50                | -----                | 33 25  | 4642              |
|           |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| 8.53      | 1.63       | 1.64        | 10.57            | -----       | 9.91       | 8.00        | 0.66       | 1.00        | *9.40   | 10.00       | 9.40                | -----                | 33 60  | 4637              |
|           |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| 3.45      | 1.79       | 1.65        | 8.42             | 9.00        | 8.12       | 8.00        | 0.30       | 1.00        | 5.64    | 5.00        | 5.64                | -----                | 28 90  | 5015              |
| 3.55      | 1.69       | 1.65        | 8.46             | 9.00        | 8.10       | 8.00        | 0.36       | 1.00        | 5.31    | 5.00        | 5.31                | -----                | 31 50  | 4884              |
| 3.67      | 1.82       | 1.65        | 16.51            | 17.00       | *15.57     | 16.00       | 0.94       | 1.00        | 2.54    | 2.00        | 2.54                | -----                | -----  | 4973              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number. | Name of Manufacturer and Brand.   | Sample Taken From—                     |
|-------------------|---|--|
| 4880              | Levan's Harvest King 2-7-10, -----  | Soloman & Waltz, Antes Fort, -----     |
| 4971              | Levan's Ideal Potato Manure 4-8-4, -----  | I. E. Artz, Hegins, -----              |
| 4965              | Levan's Potato and Tobacco Mixture 3-12-10, -----   | I. E. Artz, Hegins, -----              |
| 4970              | Levan's Special Top Dressing 7-6-5, -----   | I. E. Artz, Hegins, -----              |
| 4972              | Levan's Truckers Delight 4-8-7, -----   | I. E. Artz, Hegins, -----              |
|                   | FRED E. LORD, ESPY, PA.   |  |
| 4910              | Columbia County Garden Special, -----   | Fred E. Lord, Espy, -----              |
| 4906              | Columbia County Potato Special, -----   | Fred E. Lord, Espy, -----              |
| 4905              | Columbia County Spring Special, -----   | Fred E. Lord, Espy, -----              |
|                   | THE MILLER FERTILIZER CO., BALTI-<br>MORE, MD.  |  |
| 4776              | Miller's 2-8-5, -----   | H. O. Andrews & Son, McVeytown, ---    |
| 4611              | Miller's 2-8-5, -----   | P. R. Gregory, Bernville, -----        |
| 5189              | Miller's 2-8-5, -----   | Miller T. Harkins, Hickory Hill, ----- |
| 4548              | Miller's 2-8-5, -----   | Chas. F. Miller, Greencastle, -----    |
| 5191              | Miller's No. 1 Potato and Vegetable Grower<br>4-8-4, -----  | Miller T. Harkins, Hickory Mill, ----- |
| 5076              | Miller's No. 1 Potato and Vegetable Grower<br>4-8-4, -----  | H. L. Ort, Pennsdale, -----            |
| 4480              | Miller's Pimlico, -----   | M. L. Bates, Etters, -----             |
| 5190              | Miller's Pimlico, -----   | Miller T. Harkins, Hickory Hill, ----- |
| 4547              | Miller's Pimlico, -----   | Chas. F. Miller, Greencastle, -----    |
| 4599              | Miller's Potato and Vegetable Grower, -----   | W. H. Muth & Co., Lititz, -----        |
|                   | G. OBER & SONS COMPANY, BALTI-<br>MORE, MD.   |  |
| 4750              | Ober's Special Tobacco Mixture, -----   | S. B. Oberholtzer, Lititz, -----       |
| 5026              | Starkey Truck Compound, -----   | Wm. F. Guth, Macungie, -----           |
|                   | OXFORD PACKING WORKS, OXFORD,<br>PA.  |  |
| 5193              | O. P. W. No. 1, -----   | Wm. H. Hansen, Oxford, -----           |
|                   | PATAPSCO GUANO COMPANY, SUBSIDI-<br>ARY OF THE AMERICAN AGRICULTUR-<br>AL CHEMICAL CO., BALTIMORE,<br>MD. |  |
| 4498              | Patapsco Tobacco and Potato Fertilizer, --  | A. L. Knaub, Wellsville, -----         |
|                   | PATUXENT GUANO COMPANY, BALTI-<br>MORE, MD.   |  |
| 4526              | Patuxent Champion Fertilizer, -----   | B. F. Hubler, Ellitsburg, -----        |
| 4525              | Patuxent Tip Top Fertilizer, -----  | B. F. Hubler, Ellitsburg, -----        |
|                   | PENNSYLVANIA FARMERS COOPERA-<br>TIVE FEDERATION, INC., PHILA-<br>DELPHIA, PA.                            |  |
| 4978              | P. F. C. F. 2-8-5, -----  | C. C. Minich, Tower City, -----        |
| 4798              | P. F. C. F. 2-8-10, -----   | John Miller, Pine Grove Mills, -----   |
| 4799              | P. F. C. F. 2-12-2, -----   | John Miller, Pine Grove Mills, -----   |
| 4976              | P. F. C. F. 2-12-2, -----   | L. D. Zehner, Tamaqua, -----           |
| 5298              | P. F. C. F. 4-8-4, -----  | Frank Lindner, Ringtown, -----         |
| 4977              | P. F. C. F. 4-8-6, -----  | L. D. Zehner, Tamaqua, -----           |
| 4975              | P. F. C. F. 7-6-5, -----  | L. D. Zehner, Tamaqua, -----           |
|                   | PIEDMONT MT. AIRY GUANO CO.,<br>BALTIMORE, MD.  |  |
| 4747              | Piedmont High Grade Vegetable Grower, --  | D. S. Brubaker, Ephrata, -----         |
| 4746              | Piedmont Perfection Guano, -----  | Milton M. Wenger, Bareville, -----     |

## FERTILIZERS—Continued.

| Moisture. | NITRO-GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
|           | Found.     | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as sulphate. |  |                   |
|           |            |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
| %         | %          | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 4.95      | 1.78       | 1.65        | 7.50             | 8.00        | 7.26       | 7.00        | 0.24       | 1.00        | 10.64   | 10.00       | 10.64               | -----                | 35 00  | 4880              |
| 4.35      | 3.30       | 3.29        | 8.46             | 9.00        | 8.18       | 8.00        | 0.28       | 1.00        | 4.85    | 4.00        | 4.85                | -----                | 33 40  | 4971              |
| 3.97      | 2.53       | 2.47        | 12.14            | 13.00       | *11.52     | 12.00       | 0.62       | 1.00        | 10.07   | 10.00       | 10.07               | -----                | 37 50  | 4965              |
| 4.23      | *4.84      | 5.76        | 6.74             | 7.00        | 6.46       | 6.00        | 0.28       | 1.00        | 6.00    | 5.00        | 6.00                | -----                | 42 80  | 4970              |
| 3.82      | 3.12       | 3.29        | 8.21             | 9.00        | 7.81       | 8.00        | 0.40       | 1.00        | 7.98    | 7.00        | 7.98                | -----                | 35 50  | 4972              |
| 5.65      | 5.20       | 4.93        | 10.77            | 7.25        | 9.35       | 7.00        | 1.42       | 0.25        | 6.18    | 5.00        | 6.18                | -----                | 50 00  | 4910              |
| 7.28      | 1.50       | 1.64        | 11.20            | 8.50        | 9.82       | 8.00        | 1.38       | 0.50        | 10.94   | 10.00       | 10.94               | -----                | 31 00  | 4906              |
| 7.70      | 1.77       | 1.64        | 12.23            | 10.50       | 10.89      | 10.00       | 1.34       | 0.50        | 2.34    | 2.00        | 2.34                | -----                | 24 50  | 4905              |
| 3.68      | 1.72       | 1.65        | 8.73             | 8.50        | 7.83       | 8.00        | 0.90       | 0.50        | 5.50    | 5.00        | 5.50                | -----                | 28 50  | 4776              |
| 5.16      | 1.63       | 1.65        | 9.52             | 8.50        | 8.00       | 8.00        | 1.52       | 0.50        | 4.95    | 5.00        | 4.95                | -----                | 28 30  | 4611              |
| 3.88      | 1.74       | 1.65        | 8.97             | 8.50        | 8.05       | 8.00        | 0.92       | 0.50        | 5.47    | 5.00        | 5.47                | -----                | 29 00  | 5189              |
| 5.65      | 1.64       | 1.65        | 9.16             | 8.50        | 8.16       | 8.00        | 1.00       | 0.50        | 5.40    | 5.00        | 5.40                | -----                | 32 00  | 4548              |
| 3.95      | 3.20       | 3.30        | 8.60             | 8.50        | 8.00       | 8.00        | 0.60       | 0.50        | 4.97    | 4.00        | 4.97                | -----                | 34 50  | 5191              |
| 5.56      | 3.25       | 3.30        | 8.89             | 8.50        | *7.78      | 8.00        | 1.11       | 0.50        | 4.65    | 4.00        | 4.65                | -----                | -----  | 5076              |
| 5.22      | 1.72       | 1.65        | 9.25             | 8.50        | 8.48       | 8.00        | 0.82       | 0.50        | 10.07   | 10.00       | 10.07               | -----                | 34 00  | 4480              |
| 1.10      | 1.75       | 1.65        | 9.18             | 8.50        | 8.32       | 8.00        | 0.86       | 0.50        | 9.83    | 10.00       | 9.83                | -----                | 33 00  | 5190              |
| 3.32      | 1.66       | 1.65        | 9.31             | 8.50        | 8.05       | 8.00        | 1.26       | 0.50        | 10.07   | 10.00       | 10.07               | -----                | 36 00  | 4547              |
| 5.56      | 1.66       | 1.65        | 10.15            | 9.50        | 9.09       | 9.00        | 1.06       | 0.50        | 3.24    | 3.00        | 3.24                | -----                | 27 00  | 4599              |
| 7.60      | 1.62       | 1.65        | 8.90             | 9.00        | 8.42       | 8.00        | 0.48       | 1.00        | 10.27   | 10.00       | 10.27               | -----                | 35 00  | 4750              |
| 8.29      | *3.01      | 3.30        | 9.31             | 9.00        | 8.55       | 8.00        | 0.76       | 1.00        | 5.39    | 5.00        | 5.39                | -----                | 38 20  | 5026              |
| 8.13      | 1.65       | 1.64        | 10.38            | 9.00        | 9.28       | 8.00        | 1.10       | 1.60        | 6.40    | 5.00        | 6.40                | -----                | 30 00  | 5193              |
| 9.65      | 1.64       | 1.65        | 9.32             | 9.00        | 8.36       | 8.00        | 0.96       | 1.60        | 4.03    | 4.00        | 4.03                | -----                | -----  | 4498              |
| 9.61      | 1.69       | 1.64        | 9.46             | 9.00        | 8.56       | 8.00        | 0.90       | 1.00        | 5.51    | 5.00        | 5.51                | -----                | 31 00  | 4526              |
| 10.49     | 1.58       | 1.64        | 9.64             | 9.00        | 8.68       | 8.00        | 0.96       | 1.00        | 10.09   | 10.00       | 10.09               | -----                | 35 00  | 4525              |
| 2.73      | 2.00       | 1.65        | 9.39             | 9.00        | 8.75       | 8.00        | 0.64       | 1.00        | 5.93    | 5.00        | 5.93                | -----                | 28 00  | 4978              |
| 6.80      | 1.85       | 1.65        | 8.90             | 8.50        | 8.04       | 8.00        | 0.86       | 0.50        | 10.50   | 10.00       | 10.50               | -----                | -----  | 4798              |
| 9.85      | 1.80       | 1.65        | 12.91            | 12.50       | 11.81      | 12.00       | 1.10       | 0.50        | 2.30    | 2.00        | 2.30                | -----                | -----  | 4799              |
| 8.00      | 1.87       | 1.65        | 12.44            | 13.00       | 12.07      | 12.00       | 0.37       | 1.00        | 2.56    | 2.00        | 2.56                | -----                | 23 00  | 4976              |
| 4.55      | 3.60       | 3.29        | 8.55             | 9.00        | 8.13       | 8.00        | 0.42       | 1.00        | 4.16    | 4.00        | 4.16                | -----                | -----  | 5293              |
| 4.41      | 3.65       | 3.29        | 8.56             | 9.00        | 8.04       | 8.00        | 0.52       | 1.00        | 6.54    | 6.00        | 6.54                | -----                | 34 50  | 4977              |
| 4.52      | *5.48      | 5.75        | 6.57             | 6.50        | 5.96       | 6.00        | 0.61       | 0.50        | 5.17    | 5.00        | 3.70                | 1.47                 | 43 50  | 4975              |
| 7.50      | 1.69       | 1.65        | 8.64             | 9.00        | *7.79      | 8.00        | 9.85       | 1.00        | 10.72   | 10.00       | 10.72               | -----                | -----  | 4747              |
| 6.87      | 1.70       | 1.65        | 9.11             | 9.00        | 8.37       | 8.00        | 6.74       | 1.00        | 5.26    | 5.00        | 5.26                | -----                | -----  | 4746              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number. |  |   |
|-------------------|--|---|
|                   | Name of Manufacturer and Brand.  | Sample Taken From—                      |
|                   | RASIN-MONUMENTAL CO., SUBSIDIARY<br>OF THE VIRGINIA-CAROLINA CHEM-<br>ICAL CO., BALTIMORE, MD. |   |
| 4671              | Rasin's Best Crop Formula, -----   | Oxford Grain & Hay Co., Oxford, -----   |
| 4690              | Rasin's Best Potato Formula, -----   | Leonard Ritter, St. Marys, -----        |
| 5022              | Rasin's Vegetable Special, -----   | Erwin R. Gehman, Line Lexington, -----  |
| 4893              | Rasin's Vegetable Special, -----   | Herman Keebler, Montoursville, -----    |
| 4983              | Rasin's Vegetable Special, -----   | Clyde Kimmel, Orwigsburg, -----         |
| 4915              | Rasin's Vegetable Special, -----   | H. B. Low & Son, Orangeville, -----     |
| 4670              | Rasin's Vegetable Special, -----   | Oxford Grain & Hay Co., Oxford, -----   |
|                   | READING BONE FERTILIZER CO.,<br>READING, PA.   |   |
| 4639              | Reading One-Eight-Five, -----  | J. K. Lewis, Honeybrook, -----          |
| 5226              | Reading One-Eight-Five, -----  | C. A. Niner, Markleysburg, -----        |
| 4638              | Reading Two-Eight-Ten, -----   | J. K. Lewis, Honeybrook, -----          |
|                   | ROBERT A. REICHARD, INC., ALLEN-<br>TOWN, PA.  |   |
| 5009              | Reichard's Lehigh Potato Manure, -----   | Robert A. Reichard, Inc., Allentown, -- |
| 4988              | Reichard's Lehigh Potato Manure, -----   | Dennes Strohl, Lehighnton, -----        |
| 5008              | Reichard's Special Truck Manure, -----   | Robert A. Reichard, Inc., Allentown, -- |
| 4987              | Reichard's Special Truck Manure, -----   | Dennes Strohl, Lehighnton, -----        |
| 4986              | Reichard's Superior Phosphate, -----   | Dennes Strohl, Lehighnton, -----        |
|                   | F. S. ROYSTER GUANO COMPANY,<br>BALTIMORE, MD.   |   |
| 4683              | Royster's Banner Guano, -----  | Geo. S. Chalfont, Milton, -----         |
| 5131              | Royster's Banner Guano, -----  | Frank Deveny, Forest City, -----        |
| 5098              | Royster's Banner Guano, -----  | R. J. Dunham, Wellsboro, -----          |
| 4737              | Royster's Banner Guano, -----  | A. J. Miller, Topton, -----             |
| 4665              | Royster's Banner Guano, -----  | Harvey L. Moses, Chester Springs, ----- |
| 4686              | Royster's Bully Guano, -----   | Geo. S. Chalfont, Milton, -----         |
| 5216              | Royster's Bully Guano, -----   | J. A. Gardner, Moscow, -----            |
| 5085              | Royster's Bully Guano, -----   | McConnell Brothers, Hughesville, -----  |
| 4663              | Royster's Bully Guano, -----   | John W. Root, Kimberton, -----          |
| 4708              | Royster's Bully Guano, -----   | Tionesta Milling Co., Tionesta, -----   |
| 4934              | Royster's Prize Guano, -----   | Simon Eisman, Meadville, -----          |
| 4684              | Royster's Special Trucker, -----   | Geo. S. Chalfont, Milton, -----         |
| 4871              | Royster's Special Trucker, -----   | Glossner Implement Co., Lock Haven, --  |
| 5010              | Royster's Special Trucker, -----   | Charles M. Wilhelm, Bethlehem, -----    |
| 5215              | Royster's Vim Guano, -----   | J. A. Gardner, Moscow, -----            |
|                   | THE SCOTT FERTILIZER COMPANY,<br>ELKTON, MD.   |   |
| 4634              | Scott's Potato Grower, -----   | Marion Griest, Christiana, -----        |
| 5016              | Scott's Potato and Truck Special, -----  | M. S. Rosenberger, Milford Square, ---  |
| 5183              | Scott's Potato and Truck Special, -----  | Edw. W. Rupert, Oxford, -----           |
|                   | M. L. SHOEMAKER & CO., INC.,<br>PHILADELPHIA, PA.  |   |
| 5146              | Shoemaker's Swift-Sure Super Phosphate<br>General Use 3-8-3, -----                             | W. E. Ervin, & Son, Somerton, -----     |
| 5144              | Shoemaker's Swift-Sure Super Phosphate<br>Potato Grower 4-8-7, -----                           | W. E. Ervin, & Son, Somerton, -----     |
| 5145              | Shoemaker's Swift-Sure Super Phosphate<br>Potato Manure 4-8-6, -----                           | W. E. Ervin & Son, Somerton, -----      |
| 5147              | Shoemaker's Swift-Sure Super Phosphate<br>No. 1 4-8-5, -----                                   | W. E. Ervin & Son, Somerton, -----      |
| 5169              | Shoemaker's Swift-Sure Super Phosphate<br>10% Potato Special 2-8-10, -----                     | A. Hearst Weaver, Norristown, -----     |
|                   | STANDARD CHEMICAL WORKS, INC.,<br>WOMELSDORF, PA.  |   |
| 4742              | Cheapest in the End, -----   | Geo. W. Krause, Reinhold Station, ----  |
| 4614              | Peerless Mixture, -----  | M. K. Focht & Son, Bernville, -----     |



## FERTILIZERS—Continued.

| Moisture. | NITRO-GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
|           | Found.     | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as sulphate. |  |                   |
|           |            |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
| %         | %          | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 9.13      | 1.66       | 1.65        | 11.74            | 11.00       | 10.07      | 10.00       | 1.67       | 1.00        | 6.17    | 6.00        | 6.17                | -----                | 31 00  | 4671              |
| 2.67      | 3.33       | 3.29        | 9.15             | 9.00        | 8.19       | 8.00        | 0.96       | 1.00        | 6.37    | 6.00        | 6.37                | -----                | 40 00  | 4690              |
| 7.10      | 2.00       | 1.05        | 9.32             | 9.00        | 8.28       | 8.00        | 1.04       | 1.00        | 11.44   | 10.00       | 11.44               | -----                | 36 00  | 5022              |
| 8.30      | 1.90       | 1.05        | 9.11             | 9.00        | *7.52      | 8.00        | 1.59       | 1.00        | 10.14   | 10.00       | 10.14               | -----                | -----  | 4893              |
| 5.18      | 1.89       | 1.05        | 9.48             | 9.00        | *7.78      | 8.00        | 1.70       | 1.00        | 11.03   | 10.00       | 11.03               | -----                | 35 00  | 4983              |
| 8.75      | 1.78       | 1.05        | 9.32             | 9.00        | *7.76      | 8.00        | 1.56       | 1.00        | 10.26   | 10.00       | 10.26               | -----                | 33 00  | 4915              |
| 8.43      | 1.84       | 1.65        | 9.25             | 9.00        | *7.61      | 8.00        | 1.64       | 1.00        | 10.42   | 10.00       | 10.42               | -----                | 32 00  | 4670              |
| 6.52      | 0.90       | 0.82        | 8.02             | 9.00        | *7.56      | 8.00        | 0.46       | 1.00        | 5.04    | 5.00        | 5.04                | -----                | 26 00  | 4639              |
| 5.23      | 1.05       | 0.82        | 8.37             | 9.00        | 8.09       | 8.00        | 0.28       | 1.00        | 5.83    | 5.00        | 5.83                | -----                | 29 20  | 5226              |
| 6.80      | 1.79       | 1.64        | 8.90             | 9.00        | 8.18       | 8.00        | 0.72       | 1.00        | 10.73   | 10.00       | 10.73               | -----                | 32 75  | 4638              |
| 9.77      | 1.78       | 1.64        | 9.02             | 9.00        | 8.52       | 8.00        | 0.50       | 1.00        | 10.10   | 10.00       | 10.10               | -----                | 32 50  | 5009              |
| 4.85      | 1.74       | 1.64        | 9.53             | -----       | 8.97       | 8.00        | 0.56       | 1.00        | 10.32   | 10.00       | 10.32               | -----                | -----  | 4988              |
| 9.05      | 3.17       | 3.28        | 8.75             | 9.00        | 8.31       | 8.00        | 0.44       | 1.00        | 9.82    | 8.00        | 9.82                | -----                | 38 00  | 5008              |
| 6.63      | 3.32       | 3.28        | 8.83             | 9.00        | 8.40       | 8.00        | 0.48       | 1.00        | 10.00   | 8.00        | 10.00               | -----                | -----  | 4987              |
| 11.72     | 1.90       | 1.64        | 12.27            | 13.00       | *11.73     | 12.00       | 0.54       | 1.00        | 5.25    | 4.00        | 5.25                | -----                | -----  | 4986              |
| 5.72      | 1.60       | 1.65        | 8.64             | 8.50        | 7.94       | 8.00        | 0.70       | 0.50        | 10.97   | 10.00       | 10.97               | -----                | 37 00  | 4683              |
| 3.48      | 1.89       | 1.65        | 8.55             | 8.50        | 8.11       | 8.00        | 0.44       | 0.50        | 11.15   | 10.00       | 11.15               | -----                | 37 00  | 5131              |
| 2.55      | 1.89       | 1.65        | 8.99             | 8.50        | 8.21       | 8.00        | 0.78       | 0.50        | 11.58   | 10.00       | 11.58               | -----                | 36 20  | 5098              |
| 4.15      | 1.73       | 1.65        | 9.08             | 8.50        | 8.23       | 8.00        | 0.75       | 0.50        | 10.58   | 10.00       | 10.58               | -----                | 33 00  | 4737              |
| 4.75      | 1.59       | 1.65        | 8.57             | 8.50        | 8.17       | 8.00        | 0.40       | 0.50        | 10.50   | 10.00       | 10.50               | -----                | 40 00  | 4605              |
| 5.85      | 1.65       | 1.65        | 8.56             | 8.50        | *7.40      | 8.00        | 1.16       | 0.50        | 5.19    | 5.00        | 5.19                | -----                | 33 00  | 4656              |
| 4.67      | 1.99       | 1.65        | 9.57             | 8.50        | 8.29       | 8.00        | 1.28       | 0.50        | 5.33    | 5.00        | 5.33                | -----                | 35 00  | 5216              |
| 3.55      | 2.00       | 1.65        | 9.12             | 8.50        | 8.02       | 8.00        | 1.10       | 0.50        | 5.79    | 5.00        | 5.79                | -----                | 31 00  | 5085              |
| 4.25      | 1.80       | 1.65        | 8.81             | 8.50        | 8.39       | 8.00        | 0.42       | 0.50        | 5.42    | 5.00        | 5.42                | -----                | 30 00  | 4663              |
| 5.66      | 1.70       | 1.65        | 8.73             | 8.50        | 8.05       | 8.00        | 0.68       | 0.50        | 5.21    | 5.00        | 5.21                | -----                | 34 00  | 4708              |
| 4.75      | 3.79       | 3.29        | 8.83             | 8.50        | 8.30       | 8.00        | 0.58       | 0.50        | *8.20   | 10.00       | 8.20                | -----                | 45 00  | 4934              |
| 5.00      | *2.92      | 3.29        | 8.67             | 8.50        | 7.85       | 8.00        | 0.82       | 0.50        | 4.87    | 5.00        | 4.87                | -----                | 44 00  | 4684              |
| 3.67      | 3.36       | 3.29        | 9.17             | 8.50        | 8.15       | 8.00        | 1.02       | 0.50        | 5.60    | 5.00        | 5.60                | -----                | 45 00  | 4871              |
| 5.41      | 3.29       | 3.29        | 9.40             | 8.50        | 8.34       | 8.00        | 1.06       | 0.50        | 5.39    | 5.00        | 5.39                | -----                | 37 00  | 5010              |
| 4.05      | 1.82       | 1.65        | 13.60            | 12.50       | 11.94      | 12.00       | 1.66       | 0.50        | 2.66    | 2.00        | 2.66                | -----                | 35 00  | 5215              |
| 4.25      | 1.51       | 1.65        | 9.41             | -----       | 8.15       | 8.00        | 1.26       | 1.00        | 10.88   | 10.00       | 10.88               | -----                | 29 00  | 4634              |
| 3.75      | 1.79       | 1.65        | 9.41             | -----       | 7.95       | 8.00        | 1.46       | 1.00        | 5.35    | 5.00        | 5.35                | -----                | 28 90  | 5016              |
| 3.87      | 1.82       | 1.65        | 9.80             | -----       | 8.32       | 8.00        | 1.48       | 1.00        | 5.23    | 5.00        | 5.23                | -----                | 29 00  | 5183              |
| 10.50     | 2.02       | -----       | 11.43            | 10.00       | 9.93       | 8.00        | 1.50       | 2.00        | 5.02    | 3.00        | 5.02                | -----                | 34 00  | 5146              |
| 7.95      | 3.39       | 3.28        | 11.56            | 10.00       | 10.38      | 8.00        | 1.18       | 2.00        | 7.69    | 7.00        | 7.69                | -----                | 40 00  | 5144              |
| 7.32      | 3.24       | 3.28        | 11.95            | 10.00       | 10.25      | 8.00        | 1.70       | 2.00        | 6.90    | 6.00        | 6.90                | -----                | 39 00  | 5145              |
| 4.60      | 3.60       | 3.30        | 10.17            | 11.00       | 8.93       | 8.00        | 1.24       | 3.00        | 9.48    | 5.00        | 9.48                | -----                | 33 00  | 5147              |
| 6.70      | 2.00       | 1.64        | 10.52            | 9.00        | 9.10       | 8.00        | 1.42       | 1.00        | 9.87    | 10.00       | 9.87                | -----                | 39 00  | 5169              |
| 3.65      | 3.37       | 3.28        | 8.95             | 9.00        | 8.22       | 8.00        | 0.73       | 1.00        | 7.19    | 7.00        | 7.19                | -----                | 41 00  | 4742              |
| 4.85      | 1.61       | 1.65        | 8.58             | 9.00        | 8.24       | 8.00        | 0.34       | 1.00        | 4.08    | 4.00        | 4.08                | -----                | 28 50  | 4614              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number. | Name of Manufacturer and Brand.   | Sample Taken From—  |
|-------------------|---|---|
| 5152              | SWIFT & COMPANY, BALTIMORE, MD.<br>Swift's Champion Wheat and Corn Grower,<br>2-12-2, ----- | W. E. Ervin & Son, Somerton, -----                                  |
| 5288              | Swift's High Grade Potato Fertilizer 4-8-6, --  | Fred Hess, Nescopeck, -----   |
| 5126              | Swift's High Grade Potato Fertilizer 4-8-6, --  | Marvin Miller, Clark Summit, -----                                  |
| 4834              | Swift's High Grade Potato Fertilizer 4-8-6, --  | C. B. Tyler, Meshoppen, -----                                       |
| 4851              | Swift's High Grade Special (3-12-3), -----  | Dayton Milling Co., Towanda, -----                                  |
| 4836              | Swift's Hummer 5-8-5, -----   | Burton Williams, N. Mahoopany, -----                                |
| 5158              | Swift's Long Island Potato Manure, -----  | Pomona Grange Exchange No. 3, West<br>Chester.                      |
| 4835              | Swift's Long Island Potato Manure, -----  | Burton Williams, N. Mahoopany, -----                                |
| 5153              | Swift's Monmouth County Potato Manure<br>4-8-5, -----                                       | W. E. Ervin & Son, Somerton, -----                                  |
| 5107              | Swift's Onion Potato and Tobacco Grower<br>2-8-7, -----                                     | M. P. Close, Tioga, -----   |
| 5284              | Swift Special Potato Fertilizer, -----  | John Houseknecht, Conyngham, -----                                  |
| 4598              | Swift Special Potato Fertilizer, -----  | Keystone Tractor & Implement Co.,<br>Palmyra.                       |
| 5161              | Swift Special Potato Fertilizer, -----  | Pomona Grange Exchange No. 3, West<br>Chester.                      |
| 5159              | Swift's Special Wheat and Corn Grower, --   | Pomona Grange Exchange No. 3, West<br>Chester.                      |
|                   | F. W. TUNNELL & CO., INC., PHILA-<br>DELPHIA, PA.   |   |
| 4651              | Fish Manure with Potash, -----  | L. R. Levensgood, Pottstown, -----                                  |
| 4652              | Red Diamond Superior Potato Manure, ---   | L. R. Levensgood, Pottstown, -----                                  |
|                   | UNION CHEMICAL WORKS, INC.,<br>NORTH WALES, PA.   |   |
| 5014              | Potato and Celery Special, -----  | H. K. Mohr, Quakertown, -----                                       |
|                   | UNITED STATES GUANO CO., BALTI-<br>MORE, MD.  |   |
| 5308              | 2-8-5, -----  | McKean County Sheep & Wool Growers<br>Association, Inc., Smethport. |
| 5509              | 4-8-6, -----  | McKean County Sheep & Wool Growers<br>Association, Inc., Smethport. |
|                   | YORK CHEMICAL WORKS, YORK, PA.  |   |
| 5269              | Potato and Truck, -----   | E. A. Beck, Lehigh, -----   |
| 4666              | Potato and Truck, -----   | H. A. Brubaker, Manheim, -----                                      |
| 5268              | Spring Special, -----   | E. A. Beck, Lehigh, -----   |
| 4607              | Spring Special, -----   | H. A. Brubaker, Manheim, -----                                      |
| 5136              | Spring Special, -----   | Harry Pyle & Sons, Chadds Ford, -----                               |
| 5137              | Standard, -----   | Harry Pyle & Sons, Chadds Ford, -----                               |
|                   | LOW GRADE FORMULAS.   | Average, -----  |
|                   | THE AMERICAN AGRICULTURAL CHEM-<br>ICAL CO., NEW YORK, N. Y.                                |   |
| 4511              | Acme Fish Mixture, -----  | Geo. Schell, Vicksburg, -----                                       |
| 5070              | American Champion Grain Grower, -----   | C. M. Hartman, Warriors Mark, -----                                 |
| 5221              | Bowker's Potash Fertilizer, -----   | Meyersdale Hardware, Meyersdale, -----                              |
| 5223              | Bowker's Staple Phosphate, -----  | Meyersdale Hardware, Meyersdale, -----                              |
| 5064              | Bowker's Sure Crop Phosphate, -----   | H. L. Stultz, Williamsburg, -----                                   |
| 5095              | Bradley's B. D. Guano, -----  | Chas. McDowell, Mansfield, -----                                    |
| 4815              | Bradley's B. D. Guano, -----  | W. J. Vickery & Son, Columbia Cross<br>Roads.                       |
| 4472              | Bradley's New Method Fertilizer, -----  | Anderson Hardware Co., New Bethlehem,                               |
| 4471              | Bradley's Niagara Phosphate, -----  | Anderson Hardware Co., New Bethlehem,                               |
| 4819              | Bradley's Unicorn, -----  | H. A. Craumer, Monroeton, -----                                     |
| 4866              | Canton Chemical Baker's Special Wheat<br>Corn and Grass Mixture, -----                      | H. F. Gump & Son, Everett, -----                                    |
| 5255              | Canton Chemical Baker's Special Wheat<br>Corn and Grass Mixture, -----                      | King Brothers, Uniontown, -----                                     |
| 5062              | Canton Chemical Baker's Special Wheat<br>Corn and Grass Mixture, -----                      | Stultz Brothers, Hollidaysburg, -----                               |
| 5253              | Canton Chemical Baker's Standard High<br>Grade Guano, -----                                 | King Brothers, Uniontown, -----                                     |

## FERTILIZERS—Continued.

| Moisture. | NITRO-<br>GEN |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place<br>of selection. | Chemist's number. |
|-----------|---------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|---|-------------------|
|           | Found.        | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as sulphate. |   |                   |
|           |               |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |   |                   |
| %         | %             | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$  |                   |
| 4.27      | 2.11          | 1.65        | 12.45            | 12.60       | 11.89      | 12.00       | 0.56       | -----       | 2.24    | 2.00        | 2.24                | -----                | 30 00   | 5152              |
| 4.08      | 3.16          | 3.29        | 8.89             | 8.00        | 8.41       | 8.00        | 0.48       | -----       | 6.04    | 6.00        | 6.04                | -----                | -----   | 5288              |
| 4.98      | 3.31          | 3.29        | 8.55             | 8.00        | 8.03       | 8.00        | 0.52       | -----       | 6.65    | 6.00        | 6.65                | -----                | 39 50   | 5126              |
| 4.80      | 3.13          | 3.29        | 8.47             | 8.00        | 8.23       | 8.00        | 0.24       | -----       | 6.04    | 6.00        | 6.04                | -----                | 41 50   | 4834              |
| 8.83      | 2.55          | 2.47        | 12.73            | 12.00       | 12.37      | 12.00       | 0.36       | -----       | 3.65    | 3.00        | 3.65                | -----                | 37 00   | 4851              |
| 5.05      | *3.32         | 4.11        | 9.21             | 8.00        | 8.65       | 8.00        | 0.56       | -----       | 5.10    | 5.00        | 5.10                | -----                | 44 00   | 4836              |
| 1.35      | 3.20          | 3.29        | 8.98             | 8.00        | 8.14       | 8.00        | 0.84       | -----       | *3.70   | 4.00        | 3.70                | -----                | 32 75   | 5158              |
| 7.45      | 3.26          | 3.29        | 8.60             | 8.00        | 8.08       | 8.00        | 0.52       | -----       | 4.00    | 4.00        | 4.00                | -----                | 37 50   | 4835              |
| 5.43      | 3.32          | 3.29        | 8.63             | 8.00        | 8.12       | 8.00        | 0.54       | -----       | 5.27    | 5.00        | 5.27                | -----                | 38 00   | 5153              |
| 3.50      | 1.90          | 1.65        | 8.97             | 8.00        | 8.41       | 8.00        | 0.56       | -----       | 7.50    | 7.00        | 7.50                | -----                | 34 50   | 5107              |
| 3.45      | 1.63          | 1.65        | 8.95             | 8.00        | 8.13       | 8.00        | 0.82       | -----       | 10.29   | 10.00       | 10.29               | -----                | 31 75   | 5284              |
| 4.72      | 1.57          | 1.65        | 8.84             | 8.00        | 8.13       | 8.00        | 0.66       | -----       | 10.34   | 10.00       | 10.34               | -----                | 33 55   | 4598              |
| 2.28      | 1.85          | 1.65        | 9.06             | 8.00        | 8.20       | 8.00        | 0.76       | -----       | 10.40   | 10.00       | 10.40               | -----                | 30 05   | 5161              |
| 4.10      | 1.84          | 1.65        | 10.68            | 10.00       | 10.66      | 10.00       | 0.62       | -----       | 4.01    | 4.00        | 4.01                | -----                | 27 50   | 5159              |
| 10.03     | 1.75          | 1.64        | 11.11            | 11.00       | 9.97       | 10.00       | 1.14       | 1.00        | 6.69    | 6.00        | 6.69                | -----                | 37 00   | 4651              |
| 9.15      | 3.34          | 3.30        | 9.72             | 9.00        | 8.24       | 8.00        | 1.48       | 1.00        | 6.22    | 6.00        | 6.22                | -----                | 41 50   | 4652              |
| 6.07      | 1.66          | 1.64        | 7.84             | -----       | 6.94       | 7.00        | 0.90       | -----       | 10.94   | 10.00       | 10.94               | -----                | 36 00   | 5014              |
| 4.47      | 1.99          | -----       | 9.32             | -----       | 8.00       | 8.00        | 1.22       | 0.50        | 5.90    | 5.00        | 5.90                | -----                | 28 50   | 5308              |
| 2.59      | 3.87          | -----       | 8.55             | -----       | 7.95       | 8.00        | 0.60       | 0.50        | *4.77   | 6.00        | 4.77                | -----                | 35 00   | 5309              |
| 4.06      | 4.17          | 4.10        | 9.38             | 8.00        | 8.72       | 8.00        | 0.76       | -----       | 8.03    | 7.00        | 1.90                | 6.13                 | 45 00   | 5269              |
| 6.11      | 4.28          | 4.10        | 9.21             | 8.00        | 8.63       | 8.00        | 0.58       | -----       | 7.40    | 7.00        | 1.60                | 6.40                 | 42 40   | 4676              |
| 5.99      | 1.83          | 1.64        | 9.81             | 8.00        | 8.41       | 8.00        | 0.90       | -----       | 10.80   | 10.00       | 10.80               | -----                | 35 00   | 5268              |
| 6.20      | 1.69          | 1.64        | 9.45             | 8.00        | 8.95       | 8.00        | 0.50       | -----       | 10.00   | 10.00       | 4.20                | 5.80                 | 34 50   | 4607              |
| 6.25      | 1.69          | 1.64        | 9.12             | 8.00        | 8.14       | 8.00        | 0.98       | -----       | 10.90   | 10.00       | 10.90               | -----                | 24 00   | 5136              |
| 4.10      | 1.79          | 1.64        | 9.44             | 8.00        | 8.68       | 8.00        | 0.76       | -----       | 5.36    | 5.00        | 5.36                | -----                | 31 00   | 5137              |
| 6.12      | 2.19          | -----       | 9.58             | -----       | 8.71       | -----       | 0.87       | -----       | 6.59    | -----       | -----               | -----                | \$34 95   | -----             |
| 9.55      | 0.55          | 0.41        | 7.88             | 8.00        | 7.26       | 7.00        | 0.52       | 1.00        | 3.65    | 3.00        | 3.65                | -----                | 22 00   | 4511              |
| 7.40      | 1.10          | 0.82        | 10.03            | 9.00        | 8.62       | 8.00        | 2.00       | 1.60        | 4.87    | 4.00        | 4.87                | -----                | -----   | 5070              |
| 6.50      | 1.03          | 0.82        | 10.45            | 10.00       | 9.29       | 9.00        | 1.16       | 1.00        | 3.35    | 3.00        | 3.35                | -----                | 29 10   | 5221              |
| 9.02      | 0.99          | 0.82        | 8.56             | 9.00        | *7.89      | 8.00        | 0.76       | 1.00        | 1.33    | 1.00        | 1.33                | -----                | 26 00   | 5233              |
| 3.80      | 1.12          | 0.82        | 10.19            | 9.00        | 8.91       | 8.00        | 1.28       | 1.00        | 2.25    | 2.00        | 2.25                | -----                | 33 00   | 5064              |
| 2.70      | 1.00          | 0.82        | 9.04             | 9.00        | 8.30       | 8.00        | 0.74       | 1.00        | 4.88    | 4.00        | 4.88                | -----                | 30 00   | 5095              |
| 6.65      | 0.90          | 0.82        | 8.74             | 9.00        | 8.20       | 8.00        | 0.54       | 1.00        | 4.17    | 4.00        | 4.17                | -----                | 28 50   | 4815              |
| 6.21      | 0.84          | 0.82        | 8.53             | 9.00        | 7.82       | 8.00        | 0.76       | 1.00        | 1.83    | 2.00        | 1.83                | -----                | 30 00   | 4472              |
| 3.72      | 0.79          | 0.82        | 8.25             | 8.00        | 7.31       | 7.00        | 0.94       | 1.00        | 1.47    | 1.00        | 1.47                | -----                | 27 00   | 4471              |
| 5.75      | 1.75          | 1.65        | 8.73             | 9.00        | 7.93       | 8.00        | 6.80       | 1.00        | 2.01    | 2.00        | 2.01                | -----                | -----   | 4819              |
| 8.11      | 0.83          | 0.82        | 10.12            | 10.00       | 9.00       | 9.00        | 1.12       | 1.60        | 2.72    | 2.00        | 2.72                | -----                | 23 00   | 4865              |
| 6.82      | 1.09          | 0.82        | 9.75             | 10.00       | 9.11       | 9.00        | 0.64       | 1.00        | 2.07    | 2.00        | 1.50                | 0.57                 | 32 00   | 5255              |
| 7.50      | 1.07          | 0.82        | 10.50            | 10.00       | 9.60       | 9.00        | 1.26       | 1.00        | 3.32    | 2.00        | 3.32                | -----                | 32 00   | 5062              |
| 7.30      | 1.83          | 1.65        | 9.52             | 9.00        | 8.78       | 8.00        | 0.74       | 1.00        | 3.00    | 3.00        | 3.00                | -----                | 40 00   | 5253              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number. | Name of Manufacturer and Brand.               |       | Sample Taken From                           |       |
|-------------------|---|-------|---|-------|
|                   |   |       |   |       |
| 4532              | Canton Chemical Potato and Vegetable Manure,  | ----- | S. O. Exline, Imler,                        | ----- |
| 4476              | Canton Chemical Potato and Vegetable Manure,  | ----- | H. A. Fishburn, Penbrook,                   | ----- |
| 5254              | Canton Chemical Potato and Vegetable Manure,  | ----- | King Brothers, Uniontown,                   | ----- |
| 5061              | Canton Chemical Potato and Vegetable Manure,  | ----- | Stultz Brothers, Hollidaysburg,             | ----- |
| 4673              | Josiah Cope's Try Me Fertilizer,              | ----- | Bunting Brothers, Oxford,                   | ----- |
| 4621              | Crocker's Complete Compound,                  | ----- | Edward W. Brinton & Son, West Chester,      | ----- |
| 4929              | Crocker's Complete Manure,                    | ----- | Cochranon Milling Co., Cochranon,           | ----- |
| 4695              | Crocker's Complete Manure,                    | ----- | E. D. Everts Hardware Co., Warren,          | ----- |
| 4714              | Crocker's General Crop Fertilizer,            | ----- | M. H. Kelly, Smethport,                     | ----- |
| 4945              | Crocker's General Crop Fertilizer,            | ----- | Phillips & Minner, New Wilmington,          | ----- |
| 4478              | Dead Shot Phosphate,                          | ----- | H. A. Fishburn, Penbrook,                   | ----- |
| 5150              | Lister's Corn and Potato Fertilizer,          | ----- | W. E. Ervin & Son, Somerton,                | ----- |
| 5045              | Lister's G Brand,                             | ----- | Ebensburg Milling & Supply Co., Ebensburg,  | ----- |
| 5003              | Lister's G Brand,                             | ----- | I. C. Rosenberger, Silverdale,              | ----- |
| 4775              | Lister's G Brand,                             | ----- | R. K. Yoder, Belleville,                    | ----- |
| 5046              | Lister's Golden Sheaf,                        | ----- | Ebensburg Milling & Supply Co., Ebensburg,  | ----- |
| 4609              | Lister's Success Fertilizer,                  | ----- | J. M. Groh, Lickdale,                       | ----- |
| 5170              | Lister's Success Fertilizer,                  | ----- | Simpson Brothers, Norristown,               | ----- |
| 5264              | Ludlam's Cereops Harvest Queen,               | ----- | H. E. Newman, West Salisbury,               | ----- |
| 5266              | Ludlam's Cereops No. 2 For Grain and Grass,   | ----- | H. E. Newman, West Salisbury,               | ----- |
| 4818              | Matchless Potash Manure,                      | ----- | W. N. Bailey, Towanda,                      | ----- |
| 5114              | Matchless Potash Manure,                      | ----- | R. A. Bates, Knoxville,                     | ----- |
| 5132              | Matchless Potash Manure,                      | ----- | Frank Giles, Cramton,                       | ----- |
| 4954              | North Western Puritan Phosphate,              | ----- | F. E. Mouthorf, Conneautville,              | ----- |
| 4803              | Patapseo Coon Brand Guano,                    | ----- | Granville Mercantile Co., Granville Summit, | ----- |
| 5024              | Patapseo Planters Favorite,                   | ----- | Jacob M. Rush, Plumsteadville,              | ----- |
| 4702              | Pollock's Corn and Oats Special,              | ----- | J. O. Reed, Philipsburg,                    | ----- |
| 4701              | Pollock's Crop Invigorator,                   | ----- | Geo. A. Dick, Dillsburg,                    | ----- |
| 4500              | Pollock's Special Wheat and Corn Fertilizer,  | ----- | Geo. A. Dick, Dillsburg,                    | ----- |
| 4490              | Reese's Ammoniated Phosphate Mixture,         | ----- | W. P. Spahr, Dillsburg,                     | ----- |
| 4496              | Reese's Challenge Crop Grower,                | ----- | Elmer Crone, Wellsville,                    | ----- |
| 4493              | Reese's Half and Half,                        | ----- | Elmer Crone, Wellsville,                    | ----- |
| 4492              | Reese's Mayflower,                            | ----- | Elmer Crone, Wellsville,                    | ----- |
| 4491              | Reese's Pilgrim Fertilizer,                   | ----- | Elmer Crone, Wellsville,                    | ----- |
| 4861              | Schaal-Sheldon's Farmers Favorite,            | ----- | J. E. Jackson, Everett,                     | ----- |
| 4734              | Southern Farmers Choice,                      | ----- | S. M. Grim, Maxatawny,                      | ----- |
| 5150              | Susquehanna Ammoniated Phosphate,             | ----- | H. P. Passmore & Brother, Oxford,           | ----- |
| 5296              | Susquehanna Potato and Tobacco Phosphate,     | ----- | O. W. Kleckner, Ringtown,                   | ----- |
| 5175              | Susquehanna XXV Phosphate,                    | ----- | A. H. Keeley & Son, Schwencksville,         | ----- |
| 4658              | J. E. Tygert's Golden Harvest Phosphate,      | ----- | Wm. H. Lenhard, Phoenixville,               | ----- |
| 5173              | J. E. Tygert's Neptune Fish Compound,         | ----- | A. H. Keeley & Son, Schwencksville,         | ----- |
| 5174              | J. E. Tygert's Popular Phosphate,             | ----- | A. H. Keeley & Son, Schwencksville,         | ----- |
| 5172              | J. E. Tygert's Standard Fertilizer,           | ----- | A. H. Keeley & Son, Schwencksville,         | ----- |
| 5142              | J. E. Tygert's Star Brand Phosphate,          | ----- | Mullin & Stevens, Bustleton,                | ----- |
| 4617              | Wheeler's Potato Manure,                      | ----- | Amos Bredham, Mertztown,                    | ----- |
| 4616              | Wheeler's Tomato and Potato Special,          | ----- | Amos Bredham, Mertztown,                    | ----- |
| 4560              | Williams & Clark's Prolife Fertilizer,        | ----- | McConnell & Watterson, Kittanning,          | ----- |
| 4484              | Woolridge's Ammoniated Phosphate,             | ----- | Robert Wentz, Wellsville,                   | ----- |
| 4489              | Woolridge's Farmers Favorite Cereal Compound, | ----- | Robert Wentz, Wellsville,                   | ----- |
| 5080              | Woolridge's Triangle Brand,                   | ----- | B. L. Shipman, Muncy,                       | ----- |
| 4485              | Woolridge's Triangle Brand,                   | ----- | Robert Wentz, Wellsville,                   | ----- |
| 5083              | Woolridge's Triumph Brand Phosphate,          | ----- | B. L. Shipman, Muncy,                       | ----- |
| 4662              | Zell's Hustler Phosphate,                     | ----- | John W. Root, Kimberton,                    | ----- |



## FERTILIZERS—Continued.

| FERTILIZERS—Continued. |            |             |                  |             |            |             |            |             |         |             |                     |                     |  |                   |
|------------------------|------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|---------------------|--|-------------------|
| Moisture.              | NITRO-GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                     | Selling price per ton at place of selection. | Chemist's number. |
|                        | Found.     | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as muriate. |  |                   |
|                        |            |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                     |  |                   |
| %                      | %          | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                   | \$   |                   |
| 9.93                   | 1.03       | 0.82        | 10.20            | 10.00       | 9.28       | 9.00        | 0.92       | 1.00        | 3.44    | 3.00        | 3.44                | -----               | 20 00  | 4532              |
| 10.30                  | 0.88       | 0.82        | 10.24            | 10.00       | 9.22       | 9.00        | 1.02       | 1.00        | 3.24    | 3.00        | 3.24                | -----               | 27 00  | 4476              |
| 6.10                   | 1.08       | 0.82        | 10.10            | 10.00       | 9.40       | 9.00        | 0.70       | 1.00        | 3.07    | 3.00        | 3.07                | -----               | 38 00  | 5234              |
| 2.66                   | 1.13       | 0.82        | 10.65            | 10.00       | 9.29       | 9.00        | 1.36       | 1.00        | 3.68    | 3.00        | 3.68                | -----               | 34 00  | 5031              |
| 8.90                   | 1.70       | 1.65        | 8.67             | 9.00        | 7.82       | 8.00        | 0.85       | 1.00        | 2.51    | 2.00        | 2.51                | -----               | 26 50  | 4673              |
| 10.01                  | 0.74       | 0.82        | 8.79             | 9.00        | 8.03       | 8.00        | 0.76       | 1.00        | 4.29    | 4.00        | 4.39                | -----               | 28 00  | 4621              |
| 5.40                   | 1.07       | 0.82        | 8.81             | 9.00        | *7.65      | 8.00        | 1.16       | 1.00        | 4.42    | 4.00        | 4.42                | -----               | 27 65  | 4923              |
| 3.45                   | 0.94       | 0.82        | 9.34             | 9.00        | 8.44       | 8.00        | 0.90       | 1.00        | 4.49    | 4.00        | 4.49                | -----               | 40 00  | 4695              |
| 3.04                   | 0.86       | 0.82        | 7.81             | 8.00        | *6.62      | 7.00        | 1.22       | 1.00        | 1.32    | 1.00        | 1.32                | -----               | 29 00  | 4714              |
| 5.57                   | 1.04       | 0.82        | 7.83             | 8.00        | 7.20       | 7.00        | 0.68       | 1.00        | 1.37    | 1.00        | 1.37                | -----               | 28 00  | 4945              |
| 7.73                   | 0.80       | 0.82        | 8.66             | 8.00        | 7.40       | 7.00        | 1.26       | 1.00        | 1.10    | 1.00        | 1.10                | -----               | 25 70  | 4478              |
| 4.07                   | 1.92       | 1.65        | 9.31             | 9.00        | 8.02       | 8.00        | 1.29       | 1.00        | 3.38    | 3.00        | 3.38                | -----               | 20 00  | 5150              |
| 6.74                   | 1.07       | 0.82        | 8.98             | 9.00        | 8.02       | 8.00        | 0.96       | 1.00        | 4.29    | 4.00        | 4.29                | -----               | 33 20  | 5045              |
| 4.57                   | 1.13       | 0.82        | 8.78             | 9.00        | 8.08       | 8.00        | 0.70       | 1.00        | 4.65    | 4.00        | 4.65                | -----               | 30 00  | 5003              |
| 8.82                   | 0.85       | 0.82        | 9.16             | 9.00        | 8.28       | 8.00        | 0.88       | 1.00        | 4.04    | 4.00        | 4.04                | -----               | 26 50  | 4775              |
| 3.32                   | 1.11       | 0.82        | 9.58             | 9.00        | 8.32       | 8.00        | 1.26       | 1.00        | 1.72    | 1.00        | 1.72                | -----               | 30 00  | 5046              |
| 8.73                   | 1.79       | 1.65        | 8.58             | 9.00        | *7.66      | 8.00        | 0.92       | 1.00        | 2.13    | 2.00        | 2.13                | -----               | -----  | 4609              |
| 4.79                   | 2.04       | 1.65        | 9.64             | 9.00        | 8.32       | 8.00        | 1.22       | 1.00        | 2.03    | 2.00        | 2.03                | -----               | 32 00  | 5170              |
| 3.00                   | 1.00       | 0.82        | 9.31             | 9.00        | 8.19       | 8.00        | 1.12       | 1.00        | 2.21    | 2.00        | 2.21                | -----               | 24 70  | 5264              |
| 5.63                   | 1.09       | 0.82        | 10.29            | 8.00        | 8.49       | 7.00        | 1.80       | 1.00        | 1.17    | 1.00        | 1.17                | -----               | 23 15  | 5266              |
| 5.40                   | 1.73       | 1.65        | 9.26             | 9.00        | 8.24       | 8.00        | 1.02       | 1.00        | 2.22    | 2.00        | 2.22                | -----               | 26 00  | 4818              |
| 4.75                   | 2.00       | 1.65        | 9.21             | 9.00        | 8.09       | 8.00        | 1.12       | 1.00        | 2.51    | 2.00        | 2.51                | -----               | 34 00  | 5114              |
| 4.38                   | 2.31       | 1.65        | 8.89             | 9.00        | 3.17       | 8.00        | 0.72       | 1.00        | 2.29    | 2.00        | 2.29                | -----               | 30 00  | 5132              |
| 6.49                   | 1.00       | 0.82        | 9.50             | 10.00       | 8.93       | 8.00        | 0.97       | 1.00        | 3.59    | 3.00        | 3.59                | -----               | 30 50  | 4954              |
| 6.20                   | 0.80       | 0.82        | 9.61             | 10.00       | 8.97       | 9.00        | 0.64       | 1.00        | 2.50    | 2.00        | 2.50                | -----               | -----  | 4808              |
| 3.48                   | 2.00       | 1.65        | 9.06             | 9.00        | 8.69       | 8.00        | 1.24       | 1.00        | 2.50    | 2.00        | 2.50                | -----               | 26 70  | 5024              |
| 5.27                   | 0.85       | 0.82        | 8.67             | 8.00        | 7.31       | 7.00        | 1.26       | 1.00        | 1.21    | 1.00        | 1.21                | -----               | 30 00  | 4792              |
| 10.20                  | 0.77       | 0.82        | 8.89             | 9.00        | 8.01       | 8.00        | 0.88       | 1.00        | 4.34    | 4.00        | 4.34                | -----               | -----  | 4501              |
| 10.62                  | 0.79       | 0.82        | 8.71             | 9.00        | 7.91       | 8.00        | 0.80       | 1.00        | 2.05    | 2.00        | 2.05                | -----               | -----  | 4500              |
| 10.90                  | 0.90       | 0.82        | 9.99             | 10.00       | 8.98       | 9.00        | 0.92       | 1.00        | 3.36    | 3.00        | 3.36                | -----               | -----  | 4490              |
| 10.76                  | 1.08       | 0.82        | 8.65             | 9.00        | 7.93       | 8.00        | 0.72       | 1.00        | 3.91    | 2.00        | 3.91                | -----               | -----  | 4496              |
| 8.56                   | 0.91       | 0.82        | 8.98             | 8.00        | 7.68       | 7.00        | 1.30       | 1.00        | 1.21    | 1.00        | 1.21                | -----               | -----  | 4493              |
| 10.20                  | 1.91       | 1.65        | 8.84             | 9.00        | 7.96       | 8.00        | 0.88       | 1.00        | 2.13    | 2.00        | 2.13                | -----               | -----  | 4492              |
| 10.41                  | 0.93       | 0.82        | 9.04             | 9.00        | 7.92       | 8.00        | 1.12       | 1.00        | 4.08    | 4.00        | 4.08                | -----               | -----  | 4491              |
| 8.87                   | 0.93       | 0.82        | 8.98             | 9.00        | 8.06       | 8.00        | 0.92       | 1.00        | 2.47    | 2.00        | 2.47                | -----               | 26 50  | 4831              |
| 10.76                  | 0.98       | 0.82        | 9.99             | 10.00       | 9.59       | 9.00        | 0.40       | 1.00        | 2.10    | 2.00        | 2.10                | -----               | -----  | 4736              |
| 8.15                   | 2.05       | 1.65        | 8.80             | 9.00        | *7.54      | 8.00        | 1.26       | 1.00        | 2.40    | 2.00        | 2.40                | -----               | 27 00  | 5180              |
| 6.50                   | 2.03       | 1.65        | 9.02             | 9.00        | 7.86       | 8.00        | 1.16       | 1.00        | 3.11    | 3.00        | 3.11                | -----               | 28 00  | 5206              |
| 3.70                   | 1.16       | 0.82        | 9.58             | 9.00        | 8.72       | 8.00        | 0.86       | 1.00        | 1.38    | 1.00        | 1.38                | -----               | 26 50  | 5175              |
| 10.40                  | 0.87       | 0.82        | 8.78             | 9.00        | 7.93       | 8.00        | 0.90       | 1.00        | 1.95    | 2.00        | 1.95                | -----               | 30 00  | 4658              |
| 4.45                   | 1.02       | 0.82        | 9.45             | 10.00       | 8.81       | 9.00        | 0.64       | 1.00        | 3.60    | 3.00        | 3.60                | -----               | 30 00  | 5172              |
| 4.10                   | 1.18       | 0.82        | 8.01             | 8.00        | 7.23       | 7.00        | 0.78       | 1.00        | 1.35    | 1.00        | 1.35                | -----               | 25 00  | 5174              |
| 3.25                   | 1.90       | 1.65        | 8.61             | 9.00        | *7.58      | 8.00        | 1.03       | 1.00        | 2.49    | 2.00        | 2.49                | -----               | 32 50  | 5172              |
| 4.57                   | 2.05       | 1.65        | 8.97             | 9.00        | 8.07       | 8.00        | 0.90       | 1.00        | 3.28    | 3.00        | 3.28                | -----               | 31 00  | 5142              |
| 8.55                   | 1.65       | 1.65        | 8.61             | 9.00        | *7.67      | 8.00        | 0.94       | 1.00        | 3.17    | 3.00        | 3.17                | -----               | -----  | 4617              |
| 5.75                   | 0.95       | 0.82        | 8.51             | 9.00        | 7.81       | 8.00        | 0.70       | 1.00        | 4.27    | 4.00        | 4.27                | -----               | -----  | 4616              |
| 7.71                   | 0.89       | 0.82        | 8.23             | 8.00        | 7.29       | 7.00        | 0.94       | 1.00        | 1.43    | 1.00        | 1.43                | -----               | 24 65  | 4570              |
| 10.86                  | 0.77       | 0.82        | 8.66             | 9.00        | 7.82       | 8.00        | 0.84       | 1.00        | 1.00    | 1.00        | 1.00                | -----               | -----  | 4484              |
| 7.69                   | 0.99       | 0.82        | 8.70             | 8.00        | 7.36       | 7.00        | 1.34       | 1.00        | 1.27    | 1.00        | 1.27                | -----               | -----  | 4489              |
| 6.37                   | 1.00       | 0.82        | 9.11             | 9.00        | 8.05       | 8.00        | 1.06       | 1.00        | 4.73    | 4.00        | 4.73                | -----               | 25 00  | 5089              |
| 10.15                  | 1.03       | 0.82        | 8.69             | 9.00        | 8.01       | 8.00        | 0.68       | 1.00        | 4.15    | 4.00        | 4.15                | -----               | -----  | 4485              |
| 5.60                   | 1.89       | 1.65        | 8.99             | 9.00        | *7.77      | 8.00        | 1.22       | 1.00        | 5.13    | 3.00        | 5.13                | -----               | 27 00  | 5083              |
| 10.85                  | 0.88       | 0.82        | 9.90             | 10.00       | *8.78      | 9.00        | 1.12       | 1.00        | 3.27    | 3.00        | 3.27                | -----               | 28 00  | 4662              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number.  | Name of Manufacturer and Brand.                            | Sample Taken From—                                |
|--|--|---|
| ARMOUR FERTILIZER WORKS, BALTIMORE, MD.  |  |   |
| 5248   | Armour's Crop Grower, -----                                | J. C. Fulton & Co., Burgettstown, -----           |
| 4991   | Armour's Crop Grower, -----                                | Joseph Rudlidge, Leighton, -----                  |
| 4879   | Armour's Farmers Choice Fertilizer, -----                  | A. F. Wentz, Jersey Shore, -----                  |
| 4521   | Armour's Fish and Potash Mixture, -----                    | L. E. Rhoads, Selingsgrove, -----                 |
| 5036   | Armour's Grain Grower, -----                               | Hibner-Hoover Hardware Co., DuBois, -----         |
| 4839   | Armour's Grain Grower, -----                               | Geo. Rought, Nicholson, -----                     |
| 5019   | Armour's Royal Ammoniated Fertilizer, -----                | Ira Burgstresser, Ottsville, -----                |
| 5198   | Armour's Royal Ammoniated Fertilizer, -----                | Lake Ariel Hardware Supply Co., Lake Ariel, ----- |
| 4841   | Armour's Royal Ammoniated Fertilizer, -----                | Geo. Rought, Nicholson, -----                     |
| 5249   | Armour's Wheat, Corn and Oat Fertilizer, -----             | J. C. Fulton & Co., Burgettstown, -----           |
| 5035   | Armour's Wheat, Corn and Oat Fertilizer, -----             | Hibner-Hoover Hardware Co., DuBois, -----         |
| 5267   | Armour's Wheat, Corn and Oat Fertilizer, -----             | Joseph Rudlidge, Leighton, -----                  |
| BAUGH & SONS COMPANY, PHILADELPHIA, PA.  |  |   |
| 4626   | Baugh's Animal Base and Potash Compound, -----             | Fisher and Nolan, Malvern, -----                  |
| 4603   | Baugh's Animal Base and Potash Compound, -----             | J. H. Reitz & Son, Millway, -----                 |
| 5030   | Baugh's Animal Base and Potash Compound, -----             | Routh & Swartzle Co., Clearfield, -----           |
| 4550   | Baugh's Durable Plant Food, -----                          | W. B. Thompson & Son, Waynesboro, -----           |
| 5245   | Baugh's Economical Crop Producer, -----                    | A. C. McClure, Burgettstown, -----                |
| 4773   | Baugh's Excelsior Guano, -----                             | Belleville Flour Mills Co., Belleville, -----     |
| 4568   | Baugh's Excelsior Guano, -----                             | Farmers Exchange, Indiana, -----                  |
| 4631   | Baugh's Excelsior Guano, -----                             | Fisher and Nolan, Malvern, -----                  |
| 4591   | Baugh's Excelsior Guano, -----                             | S. F. Peckman, Williamson, -----                  |
| 4625   | Baugh's Fish Mixture, -----                                | Fisher and Nolan, Malvern, -----                  |
| 4544   | Baugh's General Crop Grower, -----                         | Farmers Elevator Co., Mercersburg, -----          |
| 4762   | Baugh's General Crop Grower, -----                         | W. C. Moore, Millerstown, -----                   |
| 5162   | Baugh's General Crop Grower, -----                         | Wm. J. Pratt, Pocopson, -----                     |
| 4744   | Wrapper Leaf Brand, -----                                  | J. Frank Lutz, Stevens, -----                     |
| THE BONE DRY LIME CORPORATION, CASSADAGA, N. Y.  |  |   |
| 4828   | Humo Special, -----  | McKee Farm near Wellsburg, N. Y., -----           |
| BOWKER FERTILIZER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y. |  |   |
| 5234   | Bowker's Corn and Grain Grower, -----                      | C. S. Hunter & Co., Washington, -----             |
| 5281   | Bowker's Square Brand Farm and Garden Phosphate, -----     | A. C. Eckrote, Sybertsville, -----                |
| 5231   | Bowker's Square Brand Farm and Garden Phosphate, -----     | Taylor Pepper, Frederickstown, -----              |
| 5204   | Bowker's Sure Crop Phosphate, -----                        | John B. Dymond, Waymarth, -----                   |
| 5232   | Bowker's Sure Crop Phosphate, -----                        | C. S. Hunter & Co., Washington, -----             |
| 4813   | Bowker's Sure Crop Phosphate, -----                        | H. M. Spaulding Son, Troy, -----                  |
| CENTRAL CHEMICAL CO., HAGERTOWN, MD.   |  |   |
| 4538   | Gro-All Crown Jewell, -----                                | Francis Baker, Everett, -----                     |
| 4898   | Gro-All Crown Jewell, -----                                | J. F. Fogelman, Pennsdale, -----                  |
| 5091   | Gro-All Crown Jewell, -----                                | J. E. Baker, Trout Run, -----                     |
| 4539   | Gro-All Golden Sheaf, -----                                | Francis Baker, Everett, -----                     |
| 4582   | Gro-All Valley Mixture, -----                              | J. W. Hartman, Chambersburg, -----                |
| THE COE-MORTIMER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.  |  |   |
| 4827   | E. Frank Coe's Columbian Corn and Potato Fertilizer, ----- | Farmers Cooperative Association, Athens, -----    |
| 5119   | E. Frank Coe's Columbian Corn and Potato Fertilizer, ----- | E. E. White, Edella, -----                        |

## FERTILIZERS—Continued.

| FERTILIZERS—Continued. |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
|------------------------|------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
| Moisture.              | NITRO-GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|                        | Found.     | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as sulphate. |  |                   |
|                        |            |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
|                        |            |             |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| %                      | %          | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 5.71                   | 1.00       | 0.82        | 9.34             | 8.50        | 7.95       | 8.00        | 1.39       | 0.50        | 2.29    | 2.00        | 2.29                | -----                | 31 00  | 5248              |
| 5.73                   | 1.00       | 0.82        | 9.35             | 8.50        | 8.37       | 8.00        | 0.98       | 0.50        | 2.07    | 2.00        | 2.07                | -----                | 25 00  | 4191              |
| 6.30                   | 0.92       | 0.82        | 9.72             | 9.50        | 9.04       | 9.00        | 0.68       | 0.50        | 3.04    | 3.00        | 3.04                | -----                | 30 00  | 4879              |
| 6.41                   | 1.63       | 1.65        | 8.75             | 8.50        | 8.29       | 8.00        | 0.46       | 0.50        | 3.17    | 3.00        | 3.17                | -----                | 29 00  | 4521              |
| 5.98                   | 1.84       | 1.65        | 8.61             | 8.50        | 7.91       | 8.00        | 0.70       | 0.50        | 2.50    | 2.00        | 2.50                | -----                | 32 50  | 5036              |
| 4.95                   | 1.94       | 1.65        | 8.58             | 8.50        | 8.02       | 8.00        | 0.56       | 0.50        | 2.47    | 2.00        | 2.47                | -----                | 29 20  | 4833              |
| 6.10                   | 1.00       | 0.82        | 8.57             | 8.50        | 7.87       | 8.00        | 0.70       | 0.50        | 4.43    | 4.00        | 4.43                | -----                | 30 50  | 5019              |
| 6.25                   | 1.12       | 0.82        | 8.69             | 8.50        | 7.86       | 8.00        | 0.83       | 0.50        | 4.24    | 4.00        | 4.24                | -----                | 33 00  | 5198              |
| 6.85                   | 1.24       | 0.82        | 8.58             | 8.50        | 8.06       | 8.00        | 0.52       | 0.50        | *3.75   | 4.00        | 3.75                | -----                | 28 00  | 4811              |
| 4.73                   | 0.93       | 0.82        | 8.73             | 7.50        | 8.01       | 7.00        | 0.72       | 0.50        | 1.36    | 1.00        | 1.36                | -----                | 27 00  | 5249              |
| 4.34                   | 0.81       | 0.82        | 7.33             | 7.50        | *6.77      | 7.00        | 0.56       | 0.50        | 1.25    | 1.00        | 1.25                | -----                | 27 00  | 5035              |
| 3.63                   | 0.93       | 0.82        | 6.84             | 7.50        | *6.66      | 7.00        | 0.78       | 0.50        | 1.31    | 1.00        | 1.31                | -----                | 24 00  | 5267              |
| 7.00                   | 1.71       | 1.65        | 9.11             | 8.00        | 8.17       | 8.00        | 0.94       | -----       | 2.31    | 2.00        | 2.31                | -----                | 29 00  | 4626              |
| 7.16                   | 1.77       | 1.65        | 9.66             | 8.00        | 8.06       | 8.00        | 1.60       | -----       | 2.36    | 2.00        | 2.36                | -----                | 31 00  | 4603              |
| 7.11                   | 1.83       | 1.65        | 8.55             | 8.00        | 7.53       | 8.00        | 0.72       | -----       | 2.46    | 2.00        | 2.46                | -----                | 35 00  | 5030              |
| 5.84                   | 0.87       | 0.82        | 9.06             | 8.00        | 8.40       | 8.00        | 0.66       | -----       | 3.93    | 3.00        | 3.93                | -----                | 23 50  | 4550              |
| 6.38                   | 1.26       | 0.82        | 9.11             | 8.00        | 8.07       | 8.00        | 1.04       | -----       | 1.83    | 2.00        | 1.83                | -----                | 28 00  | 5245              |
| 4.45                   | 0.85       | 0.82        | 9.38             | 8.00        | 8.22       | 8.00        | 1.16       | -----       | 4.51    | 4.00        | 4.51                | -----                | 27 00  | 4773              |
| 6.14                   | 0.89       | 0.82        | 9.30             | 8.00        | 8.18       | 8.00        | 1.12       | -----       | 4.24    | 4.00        | 4.24                | -----                | 27 40  | 4568              |
| 7.04                   | 1.14       | 0.82        | 8.90             | 8.00        | 8.22       | 8.00        | 0.68       | -----       | 4.78    | 4.00        | 4.78                | -----                | 27 00  | 4631              |
| 5.95                   | 0.87       | 0.82        | 9.01             | 8.00        | 8.79       | 8.00        | 1.12       | -----       | 4.03    | 4.00        | 4.03                | -----                | 28 00  | 4591              |
| 8.33                   | 2.07       | 1.65        | 8.90             | 8.00        | 8.05       | 8.00        | 0.94       | -----       | 2.29    | 2.00        | 2.29                | -----                | 29 00  | 4625              |
| 8.42                   | 0.85       | 0.82        | 9.10             | 8.00        | 8.08       | 8.00        | 1.02       | -----       | 1.28    | 1.00        | 1.28                | -----                | -----  | 4544              |
| 6.48                   | 0.90       | 0.82        | 8.88             | 8.00        | 8.00       | 8.00        | 0.88       | -----       | 1.24    | 1.00        | 1.24                | -----                | 25 00  | 4702              |
| 7.14                   | 1.11       | 0.82        | 9.62             | 8.00        | 8.32       | 8.00        | 1.20       | -----       | 1.62    | 1.00        | 1.62                | -----                | 24 00  | 5162              |
| 5.43                   | 3.24       | 3.30        | 4.50             | 2.50        | 3.60       | 3.50        | 0.90       | -----       | 5.04    | 5.00        | 1.30                | 3.74                 | 38 00  | 4744              |
| 13.46                  | 1.94       | 1.65        | 9.08             | 8.50        | 8.42       | 8.00        | 0.66       | 0.50        | 2.28    | 2.00        | 2.28                | -----                | 36 00  | 4528              |
| 5.50                   | 1.00       | 0.82        | 9.07             | 9.00        | 8.41       | 8.00        | 0.66       | 1.00        | 3.92    | 4.00        | 3.92                | -----                | 36 00  | 5274              |
| 5.39                   | 1.80       | 1.65        | 9.10             | 9.00        | 7.56       | 8.00        | 1.24       | 1.00        | 2.26    | 2.00        | 2.26                | -----                | -----  | 5281              |
| 4.10                   | 1.62       | 1.65        | 9.46             | 9.00        | 8.58       | 8.00        | 0.88       | 1.00        | 2.35    | 2.00        | 2.35                | -----                | 31 50  | 5231              |
| 1.89                   | 1.11       | 0.82        | 9.01             | 9.00        | 8.47       | 8.00        | 0.54       | 1.00        | 2.51    | 2.00        | 2.51                | -----                | 29 00  | 5204              |
| 6.60                   | 1.65       | 0.82        | 9.27             | 9.00        | 8.53       | 8.00        | 0.74       | 1.00        | 2.04    | 2.00        | 2.04                | -----                | 32 00  | 5232              |
| 6.90                   | 1.00       | 0.82        | 9.27             | 9.00        | 8.35       | 8.00        | 0.92       | 1.00        | 2.20    | 2.00        | 2.20                | -----                | 26 00  | 4813              |
| 9.10                   | 0.83       | 0.82        | 10.54            | 9.50        | 10.00      | 9.00        | 0.54       | 0.50        | 2.98    | 3.00        | 2.98                | -----                | 27 00  | 4538              |
| 7.60                   | 1.04       | 0.82        | 9.63             | 9.50        | 8.92       | 9.00        | 0.74       | 0.50        | 3.51    | 3.00        | 3.51                | -----                | -----  | 4898              |
| 4.43                   | 1.20       | 0.82        | 9.63             | 9.50        | 8.95       | 9.00        | 0.73       | 0.50        | 3.87    | 3.00        | 3.87                | -----                | -----  | 5091              |
| 8.10                   | 1.11       | 0.82        | 9.73             | 8.50        | 9.21       | 8.00        | 0.52       | 0.50        | 2.03    | 1.00        | 2.03                | -----                | 26 00  | 4539              |
| 6.30                   | 1.87       | 1.65        | 9.82             | 8.50        | 9.38       | 8.00        | 0.44       | 0.50        | 2.16    | 2.00        | 2.16                | -----                | 29 00  | 4582              |
| 5.40                   | 1.83       | 1.65        | 8.89             | 9.00        | 8.35       | 8.00        | 0.54       | 1.00        | 3.47    | 3.00        | 3.47                | -----                | 30 00  | 4827              |
| 4.43                   | 2.07       | 1.65        | 8.33             | 9.00        | *7.61      | 8.00        | 0.72       | 1.00        | 3.72    | 3.00        | 3.72                | -----                | 29 65  | 5119              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number. | Name of Manufacturer and Brand.  | Sample Taken From                                 |
|-------------------|--|---|
| 4804              | E. Frank Coe's Columbian Corn and Potash to Fertilizer, -----                                    | A. E. Woodruff & Son, Wysox, -----                |
| 4504              | E. Frank Coe's New Englander Special, --   | Coburn Grain & Creamery Co., Coburn, -----        |
| 4661              | E. Frank Coe's New Englander Special, --   | John W. Root, Kimberton, -----                    |
|                   | THE JAS. G. DOWNWARD CO., COATESVILLE, PA.   |   |
| 5168              | Royal Phosphate, -----   | Morris S. Bailey, Malvern, -----                  |
|                   | DUMONT FERTILIZER CO., INC., PHILADELPHIA, PA.   |   |
| 5005              | Dumont's One-Eight and One, -----  | E. J. Houck & Son, Bangor, -----                  |
| 5140              | Dumont's One-Nine and Three, -----   | Harry Pyle & Sons, Chadds Ford, -----             |
| 5164              | Dumont's One-Nine and Three, -----   | Harry Wilson, Frazer, -----                       |
|                   | ERIE REDUCTION CO., ERIE, PA.  |   |
| 4939              | Erie Corn and Oats Special, -----  | Simon Eisman, Meadville, -----                    |
|                   | EUREKA CHEMICAL COMPANY, BALTIMORE, MD.  |   |
| 4856              | Eureka Grain and Grass, -----  | W. H. Nesbit, McConnellsburg, -----               |
|                   | FARMERS FERTILIZER WORKS, ELIZABETHTOWN, PA.   |   |
| 4757              | Pride of Donegal, -----  | B. F. Horting, Newport, -----                     |
| 4745              | Pride of Donegal, -----  | Milton Shirk, Stevens, -----                      |
|                   | GRIFFITH & BOYD CO., BALTIMORE, MD.  |   |
| 4788              | Griffith & Boyd Co.'s Cereal Plant Food, --  | Harry Smith, Bellefonte, -----                    |
| 4674              | Griffith & Boyd Co.'s Economizer, -----  | E. A. Slagle, Paxinos, -----                      |
| 5252              | Griffith & Boyd Co.'s Farmers Queen, -----   | J. F. Hogsett & Son, Uniontown, -----             |
| 4553              | Griffith & Boyd Co.'s Fish, Blood and Potash, -----  | Dayton Milling Co., Dayton, -----                 |
| 4596              | Griffith & Boyd Co.'s Fish, Blood and Potash, -----  | A. L. Hartman, Schaffertown, -----                |
| 5237              | Griffith & Boyd Co.'s Fish, Blood and Potash, -----  | Peacock Brothers, Houston, -----                  |
| 4675              | Griffith & Boyd Co.'s Fish, Blood and Potash, -----  | E. A. Slagle, Paxinos, -----                      |
| 5250              | Griffith & Boyd Co.'s General Crop Grower, --  | J. F. Hogsett & Son, Uniontown, -----             |
| 5087              | Griffith & Boyd Co.'s Peerless Fertilizer, --  | J. S. Artley, Muncy, -----                        |
| 5235              | Griffith & Boyd Co.'s Peerless Fertilizer, --  | Peacock Brothers, Houston, -----                  |
| 4677              | Griffith & Boyd Co.'s Peerless Fertilizer, --  | E. A. Slagle, Paxinos, -----                      |
| 5089              | Griffith & Boyd Co.'s Royal Potash Guano, --   | J. S. Artley, Muncy, -----                        |
| 4676              | Griffith & Boyd Co.'s Royal Potash Guano, --   | E. A. Slagle, Paxinos, -----                      |
| 4557              | Griffith & Boyd Co.'s Special Peerless Guano, -----  | Wm. Gates Estate, Kittanning, -----               |
|                   | S. M. HESS & BROTHER INC., SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y. |   |
| 4778              | Ammoniated Superphosphate, -----   | C. B. Klingler, McClure, -----                    |
| 5275              | Fish and Potash Manure, -----  | Geo. Schweitzer, Lehighon, -----                  |
| 5274              | Wheat, Corn and Grass Manure, -----  | Geo. Schweitzer, Lehighon, -----                  |
|                   | THE HUBBARD FERTILIZER COMPANY, BALTIMORE, MD.   |   |
| 5054              | Hubbard's Climax Phosphate, -----  | Louis Sherer, South Fork, -----                   |
| 4780              | Hubbard's Farmers I. X. L., -----  | J. W. Herman, Beaver Springs, -----               |
| 4469              | Hubbard's Farmers I. X. L., -----  | Reynoldsville Hardware Co., Reynolds-ville, ----- |
| 5055              | Hubbard's Farmers I. X. L., -----  | Louis Sherer, South Fork, -----                   |
| 5067              | Hubbard's 1-9-3 Fertilizer, -----  | H. L. Orr, Tyrone, -----                          |
| 4984              | Hubbard's 1-9-3, -----   | Seltzer Brothers, Orwigsburg, -----               |
| 4761              | Hubbard's Fish and Potash Mixture, -----   | A. H. Ulsh & Sons, Millerstown, -----             |



## FERTILIZERS—Continued.

| Moisture. | NITRO-GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
|           | Found.     | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as sulphate. |  |                   |
|           |            |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
| %         | %          | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 4.31      | 2.20       | 1.65        | 8.21             | 9.00        | 8.27       | 8.00        | 0.94       | 1.00        | 3.40    | 3.00        | 3.50                | -----                | 31 00  | 4304              |
| 11.20     | 0.87       | 0.82        | 8.71             | 9.00        | 8.03       | 8.00        | 0.68       | 1.00        | 2.11    | 2.00        | 2.41                | -----                | 26 75  | 4504              |
| 11.25     | 0.88       | 0.82        | 8.51             | 9.00        | *7.03      | 8.00        | 0.88       | 1.00        | 2.07    | 2.00        | 2.07                | -----                | 26 00  | 4661              |
| 6.10      | 0.84       | 0.82        | 8.47             | 8.00        | 7.65       | 7.00        | 0.82       | 1.00        | *4.26   | 5.00        | 4.26                | -----                |  | 5163              |
| 5.02      | 0.84       | 0.82        | 9.31             | 8.50        | 7.83       | 8.00        | 1.45       | 0.50        | *0.19   | 1.00        | 0.19                | -----                | 24 25  | 5005              |
| 4.23      | 1.32       | 0.83        | 9.25             | 9.50        | *8.49      | 9.00        | 0.76       | 0.50        | 3.04    | 3.00        | 3.64                | -----                | 25 50  | 5140              |
| 5.55      | 1.20       | 0.83        | 7.81             | 9.50        | *7.07      | 9.00        | 0.74       | 0.50        | 3.98    | 3.00        | 3.98                | -----                | 28 00  | 5104              |
| 4.50      | 0.92       | 0.82        | 9.91             | 10.00       | 8.79       | 8.00        | 1.12       | 2.00        | 4.28    | 4.00        | 4.28                | -----                |  | 4939              |
| 5.10      | 0.86       | 0.82        | 8.70             | 8.50        | 7.98       | 8.00        | 0.72       | 0.50        | 2.94    | 2.00        | 2.94                | -----                | 24 70  | 4856              |
| 4.32      | 1.63       | 1.05        | 9.45             | 8.00        | 8.29       | 7.00        | 1.16       | 1.00        | 4.43    | 3.00        | 4.43                | -----                | 27 00  | 4757              |
| 5.50      | 1.58       | 1.65        | 9.75             | 8.00        | 9.13       | 7.00        | 0.44       | 1.50        | 3.76    | 3.00        | 3.76                | -----                |  | 4745              |
| 2.73      | 0.93       | 0.82        | 9.25             | 9.00        | 8.53       | 8.00        | 0.72       | 1.00        | 2.40    | 2.00        | 2.40                | -----                | 23 00  | 4783              |
| 6.80      | 0.60       | 0.41        | 7.39             | 7.00        | 6.77       | 6.00        | 0.62       | 1.00        | 1.86    | 1.00        | 1.86                | -----                | 22 00  | 4674              |
| 6.85      | 1.05       | 0.82        | 10.17            | 10.00       | 9.43       | 9.00        | 0.74       | 1.00        | 2.98    | 3.00        | 2.98                | -----                | 32 00  | 5252              |
| 7.26      | 1.44       | 1.44        | 8.43             | 8.00        | 7.77       | 7.00        | 0.66       | 1.00        | 2.29    | 2.00        | 2.29                | -----                | 28 15  | 4553              |
| 6.15      | 1.39       | 1.44        | 8.64             | 8.00        | 7.86       | 7.00        | 0.78       | 1.00        | 2.45    | 2.00        | 2.43                | -----                |  | 4596              |
| 5.50      | 1.74       | 1.44        | 8.84             | 8.00        | 7.28       | 7.00        | 1.06       | 1.00        | 2.56    | 2.00        | 2.56                | -----                | 32 50  | 5237              |
| 7.05      | 1.72       | 1.44        | 8.84             | 8.00        | 8.18       | 7.00        | 0.66       | 1.00        | 2.56    | 2.00        | 2.56                | -----                | 32 00  | 4675              |
| 8.25      | 1.82       | 1.65        | 8.93             | 9.00        | 8.47       | 8.00        | 0.46       | 1.00        | 2.02    | 2.00        | 2.02                | -----                | 32 00  | 5250              |
| 1.10      | 0.70       | 0.41        | 9.41             | 9.00        | 8.57       | 8.00        | 0.84       | 1.00        | 2.98    | 2.00        | 2.98                | -----                | 26 50  | 5087              |
| 5.32      | 0.70       | 0.41        | 8.75             | 9.00        | 8.19       | 8.00        | 0.56       | 1.00        | 2.72    | 2.00        | 2.72                | -----                | 29 00  | 5238              |
| 7.61      | 0.56       | 0.41        | 9.07             | 9.00        | 8.15       | 8.00        | 0.92       | 1.00        | 2.75    | 2.00        | 2.75                | -----                | 26 00  | 4677              |
| 3.93      | 1.00       | 0.82        | 9.57             | 9.00        | 8.45       | 8.00        | 1.12       | 1.00        | 5.12    | 4.00        | 5.12                | -----                | 30 00  | 5080              |
| 8.20      | 1.37       | 0.82        | 9.27             | 9.00        | 8.37       | 8.00        | 0.90       | 1.00        | 3.82    | 4.00        | 3.82                | -----                | 34 00  | 4676              |
| 9.52      | 0.50       | 0.41        | 9.32             | 9.00        | 8.90       | 8.00        | 0.42       | 1.00        | 1.31    | 1.00        | 1.31                | -----                | 26 50  | 4557              |
| 8.09      | 1.84       | 1.65        | 8.93             | 9.00        | 7.91       | 8.00        | 1.02       | 1.00        | 2.05    | 2.00        | 2.65                | -----                | 24 40  | 4778              |
| 3.22      | 1.80       | 1.65        | 9.41             | 9.00        | 8.11       | 8.00        | 1.30       | 1.00        | 3.75    | 3.00        | 3.75                | -----                | 29 60  | 5275              |
| 3.50      | 1.05       | 0.82        | 9.82             | 9.00        | 8.20       | 8.00        | 1.62       | 1.00        | 2.33    | 2.00        | 2.33                | -----                | 23 00  | 5274              |
| 4.73      | 1.13       | 0.82        | 9.52             | 8.00        | 7.60       | 7.00        | 1.92       | 1.00        | 5.14    | 4.00        | 5.14                | -----                | 30 50  | 5054              |
| 6.69      | 1.67       | 1.64        | 10.29            | 9.00        | 8.39       | 8.00        | 1.90       | 1.00        | 2.02    | 2.00        | 2.02                | -----                | 29 50  | 4780              |
| 10.88     | 1.65       | 1.64        | 9.94             | 9.00        | 8.88       | 8.00        | 1.06       | 1.00        | *1.67   | 2.00        | 1.67                | -----                | 35 00  | 4469              |
| 5.90      | 2.02       | 1.64        | 10.64            | 9.00        | 8.00       | 8.00        | 2.64       | 1.00        | 2.36    | 2.00        | 2.36                | -----                | 33 50  | 5055              |
| 5.00      | 1.19       | 0.82        | 11.49            | 10.00       | 9.31       | 9.00        | 2.18       | 1.06        | 3.59    | 3.00        | 3.59                | -----                | 28 00  | 5067              |
| 5.75      | 1.02       | 0.82        | 11.24            | 10.00       | *8.14      | 9.00        | 3.10       | 1.00        | 3.43    | 3.00        | 3.43                | -----                | 26 00  | 4984              |
| 6.58      | 0.44       | 0.41        | 9.17             | 9.00        | *7.36      | 8.00        | 1.81       | 1.00        | 2.66    | 2.00        | 2.66                | -----                | 22 00  | 4761              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number. | Name of Manufacturer and Brand.  | Sample Taken From—                                     |
|-------------------|--|--|
| 4952              | THE JARECKI CHEMICAL CO., (ARMOUR OWNED), SANDUSKY, OHIO.                                    | J. H. Duvall, Guys Mills, -----                        |
| 5018              | Jarecki's 1-8-4 Fertilizer, -----  | J. J. Shoemaker, Walnutport, -----                     |
| 5027              | Jarecki's Number One Formula, -----  | Meyer Milling Co., Clearfield, -----                   |
|                   | KEYSTONE BONE FERTILIZER CO., PHILADELPHIA, PA.  |  |
| 5025              | Keystone Excelsior Wheat Grower, -----   | Wm. M. Holbert, Warrington, -----                      |
| 4679              | Keystone Excelsior Wheat Grower, -----   | E. A. Slagle, Paxinos, -----                           |
| 4678              | Keystone General Manure, -----   | E. A. Slagle, Paxinos, -----                           |
|                   | KOLLER FERTILIZER CO., SEITZLAND, PA.  |  |
| 5000              | Koller's Potato Grower Phosphate, -----  | Manchester Grange Cooperative Association, Emigsville. |
| 5001              | Koller's Special Phosphate, -----  | Manchester Grange Cooperative Association, Emigsville. |
|                   | LANCASTER BONE FERTILIZER COMPANY, LANCASTER, PA.  |  |
| 4724              | Conestoga Brand Economizer, -----  | S. N. Moore, Echo, -----                               |
|                   | THE LANCASTER CHEMICAL COMPANY, LANCASTER, PA.   |  |
| 4635              | No. 18 Success Brand, -----  | A. Willis Gill, Atglen, -----                          |
|                   | LEBANON FERTILIZER WORKS, LEBANON, PA.   |  |
| 4882              | Levan's Farmers Favorite 1-8-2, -----  | Soloman & Waltz, Antes Fort, -----                     |
| 4784              | Levan's Golden Sheaf 1-8-1, -----  | John A. Walters, Middleburg, -----                     |
| 4881              | Levan's Lebanon Special 2-8-2, -----   | Soloman & Waltz, Antes Fort, -----                     |
| 4612              | Levan's Superior Fish Mixture 1-8-4, -----   | James W. Rentseher, Hamburg, -----                     |
| 4785              | Levan's Superior Fish Mixture 1-8-4, -----   | John A. Walters, Middleburg, -----                     |
|                   | THE MILLER FERTILIZER CO., BALTIMORE, MD.  |  |
| 5188              | Miller's Ammoniated, -----   | Miller T. Harkins, Hickory Hill, -----                 |
| 5074              | Miller's Club Brand, -----   | H. L. Ort, Pennsdale, -----                            |
| 4518              | Miller's Grain Grower, -----   | F. T. Baker, Lewisburg, -----                          |
| 4549              | Miller's Grain Grower, -----   | Chas. F. Miller, Greencastle, -----                    |
| 5077              | Miller's Grain Grower, -----   | H. L. Ort, Pennsdale, -----                            |
| 4517              | Miller's Harvest Queen, -----  | F. T. Baker, Lewisburg, -----                          |
| 5187              | Miller's Harvest Queen, -----  | Miller T. Harkins, Hickory Hill, -----                 |
| 4481              | Miller's Hustler Phosphate, -----  | M. L. Bates, Etters, -----                             |
|                   | G. OBER & SONS COMPANY, BALTIMORE, MD.   |  |
| 4943              | Ober's Golden Top Wheat and Corn Grower, -----   | Bell Brothers, West Middlesex, -----                   |
|                   | OXFORD PACKING WORKS, OXFORD, PA.  |  |
| 5194              | O. P. W. No. 2, -----  | Wm. H. Hanson, Oxford, -----                           |
|                   | PATAPSCO GUANO COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., BALTIMORE, MD. |  |
| 5050              | Coon Brand Guano, -----  | Ebensburg Milling & Supply Co., Ebensburg.             |
| 5235              | Coon Brand Guano, -----  | Russel Brothers, Washington, -----                     |
| 4513              | Coon Brand Guano, -----  | Geo. L. Schell, Vicksburg, -----                       |
| 4575              | Coon Brand Guano, -----  | E. C. Thomas, Gettysburg, -----                        |
| 4959              | Coon Brand Guano, -----  | Thompson & Glenn, Butler, -----                        |
| 4527              | Patapsco Big Chief Brand with Potash, -----  | J. B. Lightner, Loysville, -----                       |
| 4576              | Patapsco Big Chief Brand with Potash, -----  | E. C. Thomas, Gettysburg, -----                        |

## FERTILIZERS—Continued.

| Moisture. | NITRO-<br>GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place<br>of selection. | Chemist's number. |
|-----------|----------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|---|-------------------|
|           | Found.         | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as Muriate. | Present as Sulphate. |   |                   |
|           |                |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |   |                   |
| %         | %              | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$  |                   |
| 7.02      | 1.05           | 0.82        | 10.79            | 8.50        | 8.93       | 8.00        | 1.86       | 0.50        | 4.39    | 4.00        | 4.39                | -----                | 27 00   | 4952              |
| 6.35      | 1.00           | 0.82        | 8.62             | 9.00        | 7.86       | 8.00        | 0.76       | 1.00        | 4.39    | 4.00        | 4.39                | -----                | 23 00   | 5018              |
| 4.25      | 1.15           | 0.82        | 8.19             | 8.50        | 7.81       | 8.00        | 0.38       | 0.50        | 2.35    | 3.00        | 2.35                | -----                | 25 95   | 5027              |
| 5.99      | 1.15           | 0.82        | 9.16             | 9.00        | 7.86       | 8.00        | 1.30       | 1.00        | 4.93    | 4.00        | 4.93                | -----                | 29 00   | 5025              |
| 6.66      | 1.03           | 0.82        | 9.55             | 9.00        | 8.19       | 8.00        | 1.36       | 1.00        | 4.33    | 4.00        | 4.33                | -----                | 32 00   | 4679              |
| 8.25      | 1.16           | 0.82        | 9.48             | 9.00        | 8.40       | 8.00        | 1.02       | 1.00        | 2.10    | 2.00        | 2.10                | -----                | 23 00   | 4678              |
| 3.95      | 1.00           | 0.82        | 11.37            | 8.50        | 9.73       | 8.00        | 1.64       | 0.50        | 2.77    | 2.00        | 2.77                | -----                | 23 25   | 5000              |
| 4.19      | 0.92           | 0.82        | 10.79            | 8.50        | 8.41       | 8.00        | 2.38       | 0.50        | 4.22    | 4.00        | 4.22                | -----                | 24 60   | 5001              |
| 5.92      | 0.82           | 0.82        | 8.79             | 9.00        | 8.25       | 8.00        | 0.54       | 1.00        | 1.36    | 1.00        | 1.36                | -----                | 27 20   | 4724              |
| 10.00     | 0.85           | -----       | 9.81             | -----       | 9.15       | 8.00        | 0.66       | 1.00        | 4.35    | 4.00        | 4.35                | -----                | 25 00   | 4635              |
| 5.68      | 0.90           | 0.82        | 8.78             | 9.00        | 8.48       | 8.00        | 0.30       | 1.00        | 2.35    | 2.00        | 2.35                | -----                | 25 25   | 4882              |
| 3.23      | 0.85           | 0.82        | 8.92             | 9.00        | 8.64       | 8.00        | 0.34       | 1.00        | 1.34    | 1.00        | -----               | 1.34                 | 24 23   | 4784              |
| 7.52      | 1.59           | 1.65        | 8.80             | 9.00        | 8.50       | 8.00        | 0.30       | 1.00        | 2.94    | 2.00        | 2.94                | -----                | 26 50   | 4881              |
| 6.76      | 0.76           | 0.82        | 8.48             | 9.00        | *7.80      | 8.00        | 0.68       | 1.00        | 4.65    | 4.00        | 4.65                | -----                | 24 50   | 4612              |
| 5.98      | 0.81           | 0.82        | 8.44             | 9.00        | *7.66      | 8.00        | 0.78       | 1.00        | 4.73    | 4.00        | 4.73                | -----                | 26 70   | 4785              |
| 4.20      | 1.87           | 1.65        | 9.35             | 8.50        | 8.21       | 8.00        | 1.14       | 0.50        | 2.17    | 2.00        | 2.17                | -----                | 29 00   | 5183              |
| 4.40      | 0.62           | 0.41        | 8.74             | 8.50        | 8.02       | 8.00        | 0.72       | 0.50        | 2.63    | 2.00        | 2.63                | -----                | -----   | 5074              |
| 5.24      | 0.89           | 0.82        | 8.94             | 8.50        | 8.42       | 8.00        | 0.52       | 0.50        | 4.17    | 4.00        | 4.17                | -----                | 28 00   | 4518              |
| 6.05      | 0.84           | 0.82        | 8.94             | 8.50        | 8.12       | 8.00        | 0.82       | 0.50        | 4.46    | 4.00        | 4.46                | -----                | 28 00   | 4549              |
| 3.55      | 1.01           | 0.82        | 9.16             | 8.50        | 8.50       | 8.00        | 0.86       | 0.50        | 4.84    | 4.00        | 4.84                | -----                | -----   | 5077              |
| 6.24      | 0.99           | 0.82        | 9.83             | 9.50        | 8.90       | 9.00        | 0.84       | 0.50        | 3.09    | 3.00        | 3.09                | -----                | 28 00   | 4517              |
| 2.02      | 1.03           | 0.82        | 9.64             | 9.50        | 8.95       | 9.00        | 0.69       | 0.50        | 3.60    | 3.00        | 3.60                | -----                | 27 50   | 5137              |
| 5.70      | 0.98           | 0.82        | 9.55             | 8.50        | 8.61       | 8.00        | 0.94       | 0.50        | 1.23    | 1.00        | 1.23                | -----                | 23 50   | 4481              |
| 7.20      | 1.00           | 0.82        | 9.99             | 10.00       | 9.59       | 9.00        | 0.40       | 1.00        | 3.25    | 3.00        | 3.25                | -----                | 27 00   | 4943              |
| 7.34      | 1.63           | 1.44        | 11.25            | 10.00       | 9.73       | 9.00        | 1.52       | 1.00        | 2.54    | 2.00        | 2.54                | -----                | 28 00   | 5194              |
| 9.10      | 1.22           | 0.82        | 9.82             | 10.00       | 8.92       | 9.00        | 0.90       | 1.00        | 2.34    | 2.00        | 2.34                | -----                | 31 50   | 5050              |
| 7.15      | 1.00           | 0.82        | 9.50             | 10.00       | 8.96       | 9.00        | 0.54       | 1.00        | 2.16    | 2.00        | 2.16                | -----                | 32 00   | 5235              |
| 10.72     | 0.80           | 0.82        | 10.10            | 10.00       | 9.18       | 9.00        | 0.92       | 1.00        | 2.09    | 2.00        | 2.09                | -----                | 26 00   | 4513              |
| 11.36     | 0.85           | 0.82        | 9.83             | 10.00       | 8.97       | 9.00        | 0.86       | 1.00        | 2.79    | 2.00        | 2.79                | -----                | 26 75   | 4575              |
| 7.93      | 1.10           | 0.82        | 9.64             | 10.00       | 9.12       | 9.00        | 0.52       | 1.00        | 2.25    | 2.00        | 2.25                | -----                | 35 00   | 4959              |
| 11.23     | 0.81           | 0.82        | 10.19            | 10.00       | 9.25       | 9.00        | 0.94       | 1.00        | 3.07    | 3.00        | 3.07                | -----                | 25 85   | 4527              |
| 11.23     | 0.87           | 0.82        | 9.86             | 10.00       | 8.92       | 9.00        | 0.94       | 1.00        | 3.18    | 3.00        | 3.18                | -----                | 27 50   | 4576              |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number. | Name of Manufacturer and Brand.  | Sample Taken From—                      |
|-------------------|--|---|
| 4577              | Patapsco General Crop Producer, -----  | E. C. Thomas, Gettysburg, -----         |
| 4502              | Patapsco Grain and Grass Producer, -----   | A. L. Knaub, Wellsville, -----          |
| 4535              | Sea Gull Guano, -----  | Francis Baker, Everett, -----           |
| 4528              | Sea Gull Guano, -----  | J. B. Lightner, Loysville, -----        |
|                   | PATUXENT GUANO COMPANY, BALTI-<br>MORE, MD.  |   |
| 4755              | Beaver Brand Guano, -----  | Chas. Bruner, New Bloomfield, -----     |
| 4524              | O'Neill's Golden Harvest, -----  | B. F. Hubler, Ellitsburg, -----         |
| 4756              | Patuxent Farmers Friend, -----   | Chas. Bruner, New Bloomfield, -----     |
| 4519              | Patuxent Grain and Clover Producer, -----  | W. H. Snyder, Winfield, -----           |
|                   | PENNSYLVANIA FARMERS COOPERA-<br>TIVE FEDERATION, INC., PHILA-<br>DELPHIA, PA.                               |   |
| 4787              | P. F. C. F. 2-8-2, -----   | C. W. Slack, Centre Hall, -----         |
|                   | PIEDMONT MT. AIRY GUANO CO.,<br>BALTIMORE, MD.   |   |
| 4749              | Piedmont Farmers Favorite, -----   | John B. Bucher, Ephrata, -----          |
|                   | RASIN-MONUMENTAL CO., SUBSIDI-<br>ARY OF THE VIRGINIA-CAROLINA<br>CHEMICAL CO., BALTIMORE, MD.               |   |
| 4916              | Rasin's Capital Crop Compound, -----   | H. B. Low & Son, Orangeville, -----     |
| 4689              | Rasin's Capital Crop Compound, -----   | Leonard Ritter, St. Marys, -----        |
| 4891              | Rasin's National Crop Compound, -----  | Herman Keebler, Montoursville, -----    |
| 4765              | Rasin's Royal Fish and Potash Mixture, --  | Walter Book, Port Royal, -----          |
| 4914              | Rasin's Royal Fish and Potash Mixture, --  | H. B. Low & Son, Orangeville, -----     |
| 4667              | Rasin's Royal Fish and Potash Mixture, --  | The Oxford Grain & Hay Co., Oxford, --  |
| 4740              | Rasin's Royal Manure, -----  | S. H. Dunkel, Myerstown, -----          |
| 4777              | Rasin's Royal Manure, -----  | Isaac Shuey, McClure, -----             |
| 4691              | Rasin's Wheat, Corn and Oats Mixture, --   | Leonard Ritter, St. Marys, -----        |
| 4917              | William Penn Crop Grower, -----  | H. B. Low & Son, Orangeville, -----     |
|                   | ROBERT A. REICHARD, INC., ALLEN-<br>TOWN, PA.  |   |
| 5271              | Reichard's Peerless Phosphate, -----   | Wm. Tyson, Lehighton, -----             |
|                   | F. S. ROYSTER GUANO COMPANY,<br>BALTIMORE, MD.   |   |
| 5129              | Royster's Cuckoo Guano, -----  | Frank Deveny, Forest City, -----        |
| 4873              | Royster's Cuckoo Guano, -----  | Glossner Implement Co., Lock Haven, --  |
| 4870              | Royster's Dreadnought Guano, -----   | Glossner Implement Co., Lock Haven, --  |
| 4857              | Royster's Economy Guano, -----   | Chaaapels Seed Store, Williamsport, --- |
| 4682              | Royster's Economy Guano, -----   | Geo. S. Chalfont, Milton, -----         |
| 5011              | Royster's Economy Guano, -----   | Charles M. Wilhelm, Bethlehem, -----    |
| 5099              | Royster's Fish Flesh and Fowl, -----   | R. J. Dunham, Wellsboro, -----          |
| 5289              | Royster's Fish Flesh and Fowl, -----   | J. E. McMurdrie, Nescopeck, -----       |
| 4664              | Royster's Fish Flesh and Fowl, -----   | John W. Root, Kimberton, -----          |
|                   | SCHALL-SHELDON FERTILIZER CO.,<br>SUBSIDIARY OF THE AMERICAN<br>AGRICULTURAL CHEMICAL CO.,<br>BUFFALO, N. Y. |   |
| 4962              | Farmers Favorite, -----  | J. R. Houston, Harrisville, -----       |
|                   | THE SCOTT FERTILIZER CO., INC.,<br>ELKTON, MD.   |   |
| 5186              | Scott's Pennsylvania Potato Grower, -----  | Edw. W. Rupert, Oxford, -----           |
| 5184              | Scott's Special Grain Grower, -----  | Edw. W. Rupert, Oxford, -----           |
| 5185              | Scott's Sure Growth Superphosphate, -----  | Edw. W. Rupert, Oxford, -----           |



## FERTILIZERS—Continued.

| Moisture. | NITRO-GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |      |
|-----------|------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|------|
|           | Found.     | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as sulphate. |  |                   |      |
|           |            |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |      |
| %         | %          | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |      |
| 7.60      | 0.75       | 0.82        | 8.78             | 8.00        | 7.46       | 7.00        | 1.32       | 1.00        | 1.00    | 1.00        | 1.00                | 1.00                 | -----  | 24 50             | 4577 |
| 8.93      | 0.72       | 0.82        | 8.42             | 9.00        | 7.82       | 8.00        | 0.60       | 1.00        | *3.73   | 4.00        | 3.73                | -----                | -----  | 4502              |      |
| 10.35     | 0.88       | 0.82        | 8.20             | 9.00        | *7.48      | 8.00        | 0.72       | 1.00        | 1.08    | 1.00        | 1.08                | -----                | 26 00  | 4535              |      |
| 10.00     | 0.77       | 0.82        | 8.83             | 9.00        | 8.15       | 8.00        | 0.68       | 1.00        | 1.20    | 1.00        | 1.20                | -----                | 23 50  | 4528              |      |
| 4.43      | 0.98       | 0.82        | 11.44            | 10.00       | 9.56       | 9.00        | 1.88       | 1.00        | 3.07    | 3.00        | 3.07                | -----                | 27 25  | 4755              |      |
| 9.20      | 0.95       | 0.82        | 8.56             | 10.00       | *7.70      | 9.00        | 0.86       | 1.00        | 2.36    | 2.00        | 2.36                | -----                | 26 50  | 4524              |      |
| 2.95      | 0.50       | 0.41        | 9.52             | 9.00        | 8.10       | 8.00        | 1.42       | 1.00        | 2.65    | 2.00        | 2.65                | -----                | 24 00  | 4753              |      |
| 8.22      | 0.93       | 0.82        | 9.53             | 9.00        | 8.61       | 8.00        | 0.92       | 1.00        | 4.67    | 4.00        | 4.67                | -----                | 27 75  | 4519              |      |
| 2.50      | 2.00       | 1.65        | 10.00            | 8.50        | *7.54      | 8.00        | 2.46       | 0.50        | 2.47    | 2.00        | 2.47                | -----                | 27 70  | 4787              |      |
| 7.08      | 0.86       | 0.82        | 9.07             | -----       | 8.89       | 8.00        | 0.18       | 1.00        | 4.65    | 4.00        | 4.65                | -----                | 25 00  | 4749              |      |
| 7.80      | 1.12       | 0.82        | 11.45            | 10.00       | *8.73      | 9.00        | 2.72       | 1.00        | 3.06    | 3.00        | 3.06                | -----                | 25 50  | 4916              |      |
| 3.23      | 0.82       | 0.82        | 10.70            | 10.00       | 9.40       | 9.00        | 1.20       | 1.00        | 3.28    | 3.00        | 3.28                | -----                | 27 50  | 4689              |      |
| 9.47      | 0.95       | 0.82        | 10.20            | 9.00        | 8.04       | 8.00        | 2.16       | 1.00        | 3.88    | 4.00        | 3.88                | -----                | 29 00  | 4891              |      |
| 7.03      | 1.74       | 1.65        | 10.21            | 9.00        | 8.01       | 8.00        | 2.20       | 1.00        | 3.18    | 3.00        | 3.18                | -----                | 29 00  | 4765              |      |
| 8.20      | 1.87       | 1.65        | 9.94             | 9.00        | *7.06      | 8.00        | 2.28       | 1.00        | 3.40    | 3.00        | 3.40                | -----                | 28 50  | 4914              |      |
| 7.29      | 1.73       | 1.65        | 10.47            | 9.00        | 7.91       | 8.00        | 2.56       | 1.00        | 3.53    | 3.00        | 3.53                | -----                | 26 00  | 4667              |      |
| 7.45      | 0.87       | 0.41        | 9.64             | 9.00        | 8.96       | 8.00        | 0.68       | 1.00        | 1.87    | 1.00        | 1.87                | -----                | 23 00  | 4740              |      |
| 2.65      | 0.56       | 0.41        | 9.81             | 9.00        | 8.13       | 8.00        | 1.68       | 1.00        | 1.40    | 1.00        | 1.40                | -----                | 23 00  | 4777              |      |
| 6.23      | 0.53       | 0.41        | 9.75             | 9.00        | 8.11       | 8.00        | 1.64       | 1.00        | 2.48    | 2.00        | 2.48                | -----                | 24 10  | 4691              |      |
| 7.10      | 1.00       | 0.82        | 10.63            | 9.00        | 8.18       | 8.00        | 2.44       | 1.00        | 1.45    | 1.00        | 1.45                | -----                | 23 50  | 4917              |      |
| 3.77      | 0.87       | 0.82        | 9.67             | -----       | 8.49       | 8.00        | 1.18       | 1.00        | 2.12    | 2.00        | 2.12                | -----                | -----  | 5271              |      |
| 3.10      | 1.00       | 0.82        | 9.03             | 8.50        | 8.07       | 8.00        | 0.96       | 0.50        | 1.45    | 1.00        | 1.45                | -----                | 28 00  | 5129              |      |
| 3.87      | 0.85       | 0.82        | 8.90             | 8.50        | 8.03       | 8.00        | 0.96       | 0.50        | 1.42    | 1.00        | 1.42                | -----                | 29 00  | 4873              |      |
| 5.40      | 1.75       | 1.65        | 9.24             | 8.50        | 8.20       | 8.00        | 1.04       | 0.50        | 2.25    | 2.00        | 2.25                | -----                | 34 00  | 4870              |      |
| 4.96      | 0.87       | 0.82        | 8.39             | 8.50        | *7.39      | 8.00        | 1.90       | 0.50        | 2.28    | 2.00        | 2.28                | -----                | 30 00  | 4887              |      |
| 5.95      | 1.51       | 0.82        | 8.93             | 8.50        | 8.23       | 8.00        | 0.70       | 0.50        | 4.22    | 2.00        | 4.22                | -----                | 26 00  | 4682              |      |
| 5.70      | 1.00       | 0.82        | 8.07             | 8.50        | *7.79      | 8.00        | 0.28       | 0.50        | 2.16    | 2.00        | 2.16                | -----                | 23 70  | 5011              |      |
| 4.55      | 1.78       | 1.65        | 9.61             | 8.50        | 8.13       | 8.00        | 1.48       | 0.50        | 3.24    | 3.00        | 3.24                | -----                | 26 00  | 5099              |      |
| 2.85      | 1.86       | 1.65        | 9.59             | 8.50        | 8.09       | 8.00        | 1.50       | 0.50        | 3.21    | 3.00        | 3.21                | -----                | 30 00  | 5289              |      |
| 5.40      | 1.74       | 1.65        | 9.76             | 8.50        | 8.54       | 8.00        | 1.22       | 0.50        | 3.60    | 3.00        | 3.60                | -----                | 36 00  | 4664              |      |
| 7.15      | 1.02       | 0.82        | 8.87             | 9.00        | 8.27       | 8.00        | 0.60       | 1.00        | 2.14    | 2.00        | 2.14                | -----                | 27 75  | 4962              |      |
| 3.15      | 1.03       | 0.82        | 8.78             | -----       | 7.89       | 8.00        | 0.89       | 1.00        | 2.58    | 2.00        | 2.58                | -----                | 25 00  | 5185              |      |
| 3.07      | 0.66       | 0.41        | 8.39             | -----       | *7.65      | 8.00        | 0.74       | 1.00        | 4.69    | 4.00        | 4.69                | -----                | 25 00  | 5184              |      |
| 3.30      | 2.00       | 1.65        | 9.02             | -----       | 8.12       | 8.00        | 0.90       | 1.00        | 3.20    | 3.00        | 3.20                | -----                | 27 00  | 5185              |      |

\*Deficient.

TABLE IV—COMPLETE

| Chemist's number. | Name of Manufacturer and Brand.   | Sample taken From—  |
|-------------------|---|---|
| 4615              | THE STANDARD CHEMICAL WORKS,<br>INC., WOMELSDORF, PA.<br>Farmer's Choice, -----   | C. K. Miller, Centre Port, -----                                    |
| 5108              | SWIFT & COMPANY, BALTIMORE, MD.   | M. P. Close, Tioga, -----   |
| 4822              | Swift's Grain Fertilizer 1-8-2, -----   | N. J. Norton, New Albany, -----                                     |
| 5171              | Swift's Red Steer 2-8-2, -----  | Simpson Brothers, Norristown, -----                                 |
| 5006              | Swift's Red Steer 2-3-2, -----  | W. F. Baily, Wellsboro, -----                                       |
| 5105              | Swift's Reliable Grain Fertilizer, -----  | S. F. McIlroney, Middlebury Centre, -----                           |
| 4751              | Swift's Reliable Grain Fertilizer, -----  | Keystone Tractor & Implement Co.,<br>Palmyra.                       |
| 4821              | Swift's Special Wheat Grower, -----   | N. J. Norton, New Albany, -----                                     |
| 5154              | I. P. THOMAS & SON COMPANY,<br>PHILADELPHIA, PA.<br>Ammoniated Fish Base 2-8-2, -----   | Wm. C. Ball, Media, -----   |
| 5155              | Peerless Fertilizer 1-9-3, -----  | Wm. C. Ball, Media, -----   |
| 5156              | Superior Superphosphate 1-8-1, -----  | Wm. C. Ball, Media, -----   |
| 5310              | UNITED STATES GUANO CO., BALTI-<br>MORE, MD.<br>Standard United States Grain Grower, -----  | McKeen County Sheep & Wool Growers<br>Association, Inc., Smethport. |
| 4698              | VIRGINIA-CAROLINA CHEMICAL CO.,<br>(OF DELAWARE), BALTIMORE, MD.<br>& NEW YORK, N. Y.<br>V. C. Beaver Brand, -----  | L. A. Chase & Son, Russell, -----                                   |
| 4699              | V. C. Fish and Potash Mixture, -----  | L. A. Chase & Son, Russell, -----                                   |
| 4739              | V. C. Fish and Potash Mixture, -----  | N. R. Yost, Myerstown, -----  |
| 4580              | WASHINGTON, ALEXANDER & COOKE<br>CO., AFFILIATED WITH VIRGINIA-<br>CAROLINA CHEMICAL CO.,<br>CHARLES TOWN, W. VA.<br>Wacco Potato and Tobacco Manure, ----- | E. S. Kelly, Gettysburg, -----                                      |
| 4586              | YORK CHEMICAL WORKS, YORK, PA.<br>One-Eight-One, -----  | Enos H. Horst, Chambersburg, -----                                  |
| 5133              | Plow Brand, -----   | Harry Pyle & Sons, Chadds Ford, -----                               |
| 4941              | Standard Potash, -----  | Geo. E. McQuiston, Grove City, -----                                |
| 4814              | Standard Potash, -----  | W. J. Vickery & Son, Columbia Cross<br>Roads.                       |
|                   |   | Average, -----  |
|                   |   | Total Average, -----  |

## FERTILIZERS—Concluded.

| Moisture. | NITRO-<br>GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                    |                      | Selling price per ton at place<br>of selection. | Chemist's number. |
|-----------|----------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|--------------------|----------------------|---|-------------------|
|           | Found.         | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as murate. | Present as sulphate. |   |                   |
|           |                |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                    |                      |   |                   |
| %         | %              | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                  | %                    | \$  |                   |
| 6.14      | 0.78           | 0.82        | 9.07             | 10.00       | 8.83       | 9.00        | 0.24       | 1.00        | 3.19    | 3.00        | 3.19               | -----                | 28 00   | 4615              |
| 4.67      | 1.22           | 0.82        | 8.74             | 8.00        | 8.50       | 8.00        | 0.24       | -----       | 1.91    | 2.00        | 1.91               | -----                | 26 50   | 5108              |
| 4.09      | 1.62           | 1.65        | 8.81             | 8.00        | 8.55       | 8.00        | 0.26       | -----       | 2.24    | 2.00        | 2.24               | -----                | 28 00   | 4822              |
| 3.58      | 2.12           | 1.65        | 8.52             | 8.00        | 8.10       | 8.00        | 0.42       | -----       | 2.29    | 2.00        | 2.29               | -----                | 32 00   | 5171              |
| 4.10      | 1.08           | 0.82        | 9.08             | 8.00        | 8.86       | 8.00        | 0.22       | -----       | 1.49    | 1.00        | 1.49               | -----                | 35 00   | 5006              |
| 4.35      | 0.95           | 0.82        | 8.06             | 8.00        | 7.95       | 8.00        | 0.10       | -----       | 1.56    | 1.00        | 1.36               | -----                | 27 10   | 5105              |
| 5.13      | 0.83           | 0.82        | 9.06             | 8.00        | 8.86       | 8.00        | 0.20       | -----       | 4.00    | 4.00        | 4.00               | -----                | 25 55   | 4751              |
| 7.15      | 0.83           | 0.82        | 8.47             | 8.00        | 8.41       | 8.00        | 0.06       | -----       | 4.00    | 4.00        | 4.00               | -----                | 28 50   | 4821              |
| 4.00      | 2.04           | 1.65        | 9.96             | 8.50        | *7.54      | 8.00        | 2.42       | 0.50        | 2.48    | 2.00        | 2.48               | -----                | 29 00   | 5151              |
| 6.40      | 1.14           | 0.82        | 9.85             | 9.50        | *7.59      | 9.00        | 2.26       | 0.50        | 4.17    | 3.00        | 4.17               | -----                | 27 00   | 5155              |
| 4.00      | 1.14           | 0.82        | 9.91             | 8.50        | 7.84       | 8.00        | 2.07       | 0.50        | 1.40    | 1.00        | 1.40               | -----                | 25 00   | 5156              |
| 3.92      | 1.89           | -----       | 10.26            | -----       | 8.34       | 8.00        | 1.02       | 0.50        | 2.56    | 2.00        | 2.56               | -----                | 26 50   | 5310              |
| 6.22      | 0.89           | 0.82        | 9.83             | 9.00        | 8.69       | 8.00        | 1.74       | 1.00        | 2.37    | 2.00        | 2.37               | -----                | 32 00   | 4698              |
| 4.95      | 1.65           | 1.65        | 10.22            | 9.00        | 8.12       | 8.00        | 2.10       | 1.00        | 3.23    | 3.00        | 3.23               | -----                | 37 00   | 4609              |
| 8.83      | 1.62           | 1.65        | 10.36            | 9.00        | 9.92       | 8.00        | 0.44       | 1.00        | 3.49    | 3.00        | 3.49               | -----                | 30 00   | 4739              |
| 4.97      | 0.47           | 0.41        | 11.41            | 8.00        | 10.87      | 7.00        | 0.54       | 1.00        | 2.58    | 2.00        | 2.58               | -----                | -----   | 4580              |
| 7.60      | 0.84           | 0.82        | 8.89             | 8.00        | 8.37       | 8.00        | 0.52       | -----       | 1.31    | 1.00        | 1.31               | -----                | -----   | 4586              |
| 6.80      | 1.75           | 1.64        | 8.95             | 8.00        | 8.15       | 8.00        | 0.80       | -----       | 2.55    | 2.00        | 2.55               | -----                | 29 00   | 5133              |
| 4.10      | 0.79           | 0.82        | 8.02             | 8.00        | *7.64      | 8.00        | 0.38       | -----       | 5.07    | 4.00        | 5.07               | -----                | 31 00   | 4941              |
| 6.99      | 0.85           | 0.82        | 8.80             | 8.00        | 8.23       | 8.00        | 0.66       | -----       | 4.56    | 4.00        | 4.56               | -----                | 25 50   | 4614              |
| 6.33      | 1.19           | -----       | 9.25             | -----       | 8.25       | -----       | 1.00       | -----       | 2.88    | -----       | -----              | -----                | \$28 39   | -----             |
| 6.22      | 1.72           | -----       | 9.42             | -----       | 8.49       | -----       | 0.93       | -----       | 4.85    | -----       | -----              | -----                | \$31 86   | -----             |

\*Deficient.

TABLE V.—NITROGEN AND POS  
Including Dissolved Bones

| Chemist's number.           | Name of Manufacturer and Brand.  | Sample Taken From—  |
|-----------------------------|--|---|
| <b>HIGH GRADE FORMULAS.</b> |  |   |
|                             | BAUGH & SONS COMPANY, PHILA-<br>DELPHIA, PA.   |   |
| 4630                        | Baugh's The Old Stand-By Dissolved Ani-<br>mal Base, -----   | Fisher & Nolan, Malvern, -----  |
|                             | DUMONT FERTILIZER CO., INC.,<br>PHILADELPHIA, PA.  |   |
| 4980                        | Dumont's Pure Dissolved Animal Matter,---  | A. F. Kimmel, Orwigsburg, -----<br>Average, -----   |
| <b>LOW GRADE FORMULAS.</b>  |  |   |
|                             | THE AMERICAN AGRICULTURAL CHEM-<br>ICAL CO., NEW YORK, N. Y.   |   |
| 4637                        | Ammoniated Fertilizer A, -----   | W. H. Lenhard, Phoenixville, -----  |
| 4705                        | Ammoniated Fertilizer AA, -----  | Union City Coal & Supply Co., Union<br>City. -----  |
| 4860                        | Soluble Grain Mixture, -----   | J. E. Jackson, Everett, -----   |
|                             | THE COE-MORTIMER COMPANY, SUB-<br>SIDIARY OF THE AMERICAN AGRI-<br>CULTURAL CHEMICAL CO., NEW<br>YORK, N. Y. |   |
| 4660                        | E. Frank Coe's Original Ammoniated Dis-<br>solved Phosphate, -----   | John W. Root, Kimberton, -----  |
| 4506                        | E. Frank Coe's XXV Ammoniated Phos-<br>phate (1916), -----   | Coburn Grain & Creamery Co., Coburn, -----  |
|                             | DUMONT FERTILIZER CO., INC.,<br>PHILADELPHIA, PA.  |   |
| 5166                        | Dumont's 2-10-0, -----   | Harry Wilson, Frazer, -----   |
|                             | ERIE REDUCTION CO., ERIE, PA.  |   |
| 4935                        | Acidulated Fish Special, -----   | Simon Eisman, Meadville, -----  |
|                             | GRIFFITH & BOYD CO., BALTIMORE,<br>MD.   |   |
| 4731                        | Griffith & Boyd Co.'s Peerless Mixture, ---  | Mahoning Hardware & Implement Co.,<br>Punxsutawney. -----<br>Average, -----<br>Total Average, ----- |



## PHOSPHORIC ACID FERTILIZERS.

And Other Like Products.

| Moisture.    | NITROGEN.    |                | PHOSPHORIC ACID. |                |                |                |              |                | Selling price per ton at place of selection. | Chemist's number. |
|--------------|--------------|----------------|------------------|----------------|----------------|----------------|--------------|----------------|--|-------------------|
|              | Found.       | Guaranteed.    | Total.           |                | Available.     |                | Insoluble.   |                |  |                   |
|              |              |                | Found.           | Guaranteed.    | Found.         | Guaranteed.    | Found.       | Guaranteed.    |  |                   |
| %<br>8.50    | %<br>1.72    | %<br>1.65      | %<br>12.90       | %<br>12.00     | %<br>12.08     | %<br>12.00     | %<br>0.82    | %<br>-----     | \$<br>31 00                                  | 4630              |
| 3.15<br>5.82 | 1.83<br>1.78 | 1.65<br>-----  | 14.11<br>13.51   | 12.50<br>----- | 12.57<br>12.33 | 12.00<br>----- | 1.54<br>1.18 | 0.50<br>-----  | 32 00<br>\$31 50                             | 4680<br>-----     |
| 6.15<br>3.65 | 0.88<br>1.58 | 0.82<br>1.65   | 11.77<br>10.68   | 11.00<br>11.00 | 10.35<br>*9.55 | 10.00<br>10.00 | 1.42<br>1.05 | 1.00<br>1.00   | 29.00<br>33 60                               | 4657<br>4705      |
| 6.75         | 1.04         | 0.82           | 9.12             | 9.00           | 8.20           | 8.00           | 0.92         | 1.00           | 25 00  | 4800              |
| 6.12<br>7.05 | 1.72<br>1.00 | 1.65<br>0.82   | 11.71<br>11.82   | 11.00<br>11.00 | *9.63<br>10.42 | 10.00<br>10.00 | 2.08<br>1.40 | 1.00<br>1.00   | 30 00<br>26 75                               | 4660<br>4506      |
| 6.25<br>2.65 | 1.72<br>1.11 | 1.65<br>1.03   | 11.71<br>11.53   | 10.50<br>11.50 | 10.69<br>9.49  | 10.00<br>9.50  | 1.02<br>2.04 | 0.50<br>2.00   | 30 00<br>-----                               | 5166<br>4035      |
| 6.05         | 0.46         | 0.41           | 9.13             | 9 60           | 8.27           | 8.00           | 0.83         | 1.00           | 28 00  | 4731              |
| 5.58<br>5.63 | 1.19<br>1.31 | -----<br>----- | 10.93<br>11.44   | -----<br>----- | 9.58<br>10.12  | -----<br>----- | 1.35<br>1.32 | -----<br>----- | \$28 82<br>\$29 42                           | -----<br>-----    |

TABLE VI.—GROUND  
Furnishing Nitrogen

| Chemist's number. | Name of Manufacturer and Brand.                             |  | Sample Taken From—  |  |
|-------------------|---|--|---|--|
|                   |   |  |   |  |
|                   | THE AMERICAN AGRICULTURAL<br>CHEMICAL CO., NEW YORK, N. Y.  |  |   |  |
| 4623              | Fine Ground Bone, -----                                     |  | Edward W. Brinton & Son, West Chester,                              |  |
| 5212              | Fine Ground Bone, -----                                     |  | G. R. Clark, Scranton, -----  |  |
| 4574              | Fine Ground Bone, -----                                     |  | E. C. Thomas, Gettysburg, -----                                     |  |
| 5053              | Pure Bone Meal, -----                                       |  | Ebensburg Milling & Supply Co., Ebens-<br>burg, -----               |  |
| 5179              | Pure Bone Meal, -----                                       |  | H. P. Passmore & Brother, Oxford, -----                             |  |
|                   | ARMOUR FERTILIZER WORKS, BALTI-<br>MORE, MD.                |  |   |  |
| 4567              | Armour's Big Crop Bone Meal, -----                          |  | Frank Douglass, Indiana, -----                                      |  |
| 4700              | Armour's Big Crop Bone Meal, -----                          |  | Nickle Plate Flour Mill, Wesleyville, -----                         |  |
|                   | BAUGH & SONS COMPANY, PHILADEL-<br>PHIA, PA.                |  |   |  |
| 5212              | Baugh's Raw Bone Meal Warranted Pure,                       |  | W. M. Simington, Pottsgrove, -----                                  |  |
|                   | CAMBRIA FERTILIZER CO., JOHNS-<br>TOWN, PA.                 |  |   |  |
| 5660              | Pure Fine Ground Bone Dust, -----                           |  | A. F. Stutzman & Son, Johnstown, -----                              |  |
|                   | DUMONT FERTILIZER CO., INC.,<br>PHILADELPHIA, PA.           |  |   |  |
| 4614              | Pure Ground Bone, -----                                     |  | Russell James, Warwick, -----                                       |  |
|                   | HUBBARD FERTILIZER COMPANY,<br>BALTIMORE, MD.               |  |   |  |
| 4466              | Hubbard's Pure Raw Bone, -----                              |  | Reynoldsville Hardware Co., Reynolds-<br>ville, -----               |  |
|                   | INTERNATIONAL AGRICULTURAL COR-<br>PORATION, BUFFALO, N. Y. |  |   |  |
| 4712              | Bone Meal, -----  |  | Smith Brothers, Inc., Bradford, -----                               |  |
|                   | LEBANON FERTILIZER WORKS,<br>LEBANON, PA.                   |  |   |  |
| 4969              | Pure Fine Ground Meal 3-22-89, -----                        |  | I. E. Artz, Hegins, -----   |  |
| 4907              | FRED E. LORD, ESPY, PA.<br>Ground Bone, -----               |  | Fred E. Lord, Espy, -----   |  |
|                   | F. S. ROYSTER GUANO COMPANY,<br>BALTIMORE, MD.              |  |   |  |
| 4685              | Royster's Fine Ground Bone Meal, -----                      |  | Geo. S. Chalfont, Milton, -----                                     |  |
|                   | I. P. THOMAS & SON CO., PHILADEL-<br>PHIA, PA.              |  |   |  |
| 5157              | Pure Ground Bone, -----                                     |  | Wm. C. Ball, Media, -----   |  |
|                   | UNITED STATES GUANO CO., BALTI-<br>MORE, MD.                |  |   |  |
| 5307              | 3 and 50 Bone Meal, -----                                   |  | McKean County Sheep & Wool Growers<br>Association, Inc., Smethport. |  |
|                   |   |  | Average, -----  |  |

## BONE FERTILIZERS.

and Phosphoric Acid.

| Moisture. | CHEMICAL ANALYSIS. |             |                  |             | MECHANICAL ANALYSIS. |         | Selling price per ton at place of selection. | Chemist's number. |
|-----------|--------------------|-------------|------------------|-------------|----------------------|---------|--|-------------------|
|           | NITROGEN.          |             | PHOSPHORIC ACID. |             | Found.               | Coarse. |  |                   |
|           | Found.             | Guaranteed. | Found.           | Guaranteed. |                      |         |  |                   |
| %         | %                  | %           | %                | %           | %                    | %       | \$   |                   |
| 5.83      | 2.60               | 2.47        | 25.03            | 22.83       | 67                   | 33      | 51 00  | 4623              |
| 4.40      | 2.93               | 2.47        | 26.15            | 22.83       | 49                   | 51      | 43 00  | 5212              |
| 5.79      | 2.63               | 2.47        | 24.94            | 22.83       | 72                   | 28      | 48 00  | 4574              |
| 5.90      | 4.00               | 3.70        | *20.69           | 21.51       | 51                   | 49      | 60 00  | 5053              |
| 5.10      | 4.06               | 3.70        | 21.52            | 21.51       | 53                   | 47      | 47 00  | 5179              |
| 11.00     | 2.30               | -----       | 24.67            | 22.00       | 71                   | 29      | 50 25  | 4567              |
| 2.98      | 2.53               | 2.47        | *26.06           | 27.00       | 63                   | 37      | 48 50  | 4700              |
| 4.94      | 4.23               | 3.70        | *17.71           | 21.50       | 64                   | 36      | -----  | 5312              |
| 2.79      | *2.60              | 3-5         | 26.67            | 20-24       | 74                   | 26      | 45 00  | 5060              |
| 5.56      | *2.23              | 2.47        | 25.95            | 22.90       | 55                   | 45      | 45 00  | 4644              |
| 4.60      | 3.80               | 3.69        | 24.12            | 22.50       | 76                   | 24      | 60 00  | 4466              |
| 9.63      | 2.44               | 2.40        | 24.36            | 22.00       | 64                   | 36      | 60 00  | 4712              |
| 9.71      | 2.86               | 2.47        | 24.11            | 22.80       | 67                   | 33      | 43 50  | 4969              |
| 10.35     | 3.91               | 2.46        | 21.34            | 15.00       | 56                   | 44      | 40 00  | 4907              |
| 6.32      | *2.27              | 2.47        | 26.61            | 22.90       | 85                   | 15      | 51 00  | 4685              |
| 6.05      | 3.27               | 2.45        | 24.35            | 23.00       | 71                   | 29      | 50 00  | 5157              |
| 2.15      | 2.62               | 2.46        | 24.61            | 22.86       | 74                   | 26      | 44 75  | 5307              |
| 6.06      | 3.02               | -----       | 24.06            | -----       | 65                   | 35      | \$49 50                                      | -----             |

TABLE VII.—ACIDULATED

Furnishing Phos

| Chemist's number.  | Name of Manufacturer and Brand.                         | Sample Taken From—                               |
|--|---|--|
| <p style="text-align: center;"><b>HIGH GRADE FORMULAS</b><br/> <b>THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.</b></p>          |   |  |
| 4728   | 14% Acid Phosphate, -----                               | S. J. Mulberger, Home, -----                     |
| 4470   | 16% Acid Phosphate, -----                               | Anderson Hardware Co., New Betulchem, -----      |
| 4019   | 16% Acid Phosphate, -----                               | Edward W. Brinton & Son, West Chester -----      |
| 4702   | 16% Acid Phosphate, -----                               | Girard Coal & Supply Co., Girard, -----          |
| 5250   | 16% Acid Phosphate, -----                               | King Brothers, Uniontown, -----                  |
| 5232   | Bowker's 16% Acid Phosphate, -----                      | Myersdale Hardware, Myersdale, -----             |
| 5049   | Lister's High Grade Acid Phosphate, -----               | Ebensburg Milling & Supply Co., Ebensburg, ----- |
| 5210   | Lister's High Grade Acid Phosphate, -----               | E. J. Hull, Olyphant, -----                      |
| 4707   | Lister's High Grade Acid Phosphate, -----               | J. K. McLaughlin, Spruce Hill, -----             |
| 5262   | Lister's High Grade Acid Phosphate, -----               | H. E. Newnan, West Salisbury, -----              |
| 4583   | Lister's High Grade Acid Phosphate, -----               | Shippensburg Elevator Co., Shippensburg, -----   |
| 4768   | Follock's High Grade Superphosphate, -----              | A. S. Raffenberg, East Waterford, -----          |
| 4524   | Woodbridge's High Grade Acid Phosphate, -----           | S. C. Exline, Imber, -----                       |
| 5082   | Woodbridge's High Grade Acid Phosphate, -----           | B. L. Shipman, Muncy, -----                      |
| 4487   | Woodbridge's High Grade Acid Phosphate, -----           | Robert Wentz, Wellsville, -----                  |
| <p style="text-align: center;"><b>ARMOUR FERTILIZER WORKS, BALTIMORE, MD.</b></p>  |   |  |
| 4473   | Armour's Big Crop Fertilizers Acid Phosphate 16%, ----- | Wm. Divler, Brookville, -----                    |
| 5024   | Armour's Big Crop Fertilizers Acid Phosphate 16%, ----- | Hibner-Hoover Hardware Co., DuBois, --           |
| 4701   | Armour's Big Crop Fertilizers Acid Phosphate 16%, ----- | Nickel Plate Flour Mill, Wesleyville, -----      |
| 4520   | Armour's Big Crop Fertilizers Acid Phosphate 16%, ----- | L. E. Rhodes, Selinsgrove, -----                 |
| <p style="text-align: center;"><b>BAUGH &amp; SONS COMPANY, PHILADELPHIA, PA.</b></p>  |   |  |
| 4570   | Baugh's 14% Acid Phosphate, -----                       | Farmers Exchange, Indiana, -----                 |
| 4543   | Baugh's 16% Acid Phosphate, -----                       | Farmers Elevator Co., Mercersburg, -----         |
| 4500   | Baugh's 16% Acid Phosphate, -----                       | Farmers Exchange, Mifflinburg, -----             |
| 4572   | Baugh's 16% Acid Phosphate, -----                       | Farmers Exchange, Indiana, -----                 |
| 5059   | Baugh's 16% Acid Phosphate, -----                       | A. F. Stutzman & Son, Johnstown, -----           |
| 5208   | Baugh's 16% Acid Phosphate, -----                       | F. R. Varcol, Waymarth, -----                    |
| <p style="text-align: center;"><b>BOWKER FERTILIZER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.</b></p> |   |  |
| 5201   | Bowker's 16% Acid Phosphate, -----                      | John B. Dymond, Waymarth, -----                  |
| 5233   | Bowker's 16% Acid Phosphate, -----                      | C. S. Hunter & Co., Washington, ---              |
| 4957   | Bowker's 16% Acid Phosphate, -----                      | J. H. McWhirter, Mercer, -----                   |
| 4656   | Bowker's 16% Acid Phosphate, -----                      | Charles Skeen, Sanatoga, -----                   |
| <p style="text-align: center;"><b>CENTRAL CHEMICAL CO., HAGERS-TOWN, MD.</b></p>   |   |  |
| 4537   | Gro-All Dissolved Phosphate, -----                      | Francis Baker, Everett, -----                    |
| 4836   | Gro-All Dissolved Phosphate, -----                      | J. P. Fogleman, Pennsdale, -----                 |
| 5279   | Gro-All Dissolved Phosphate, -----                      | Mahlen Homm, Lehighton, -----                    |
| <p style="text-align: center;"><b>THE COE-MORTIMER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.</b></p>  |   |  |
| 4503   | E. Frank Coe's 16% Superphosphate, -----                | Coburn Grain & Creamery Co., Coburn, -----       |
| 4826   | E. Frank Coe's 16% Superphosphate, -----                | Farmers Cooperative Association, Athens, -----   |
| 4716   | E. Frank Coe's 16% Superphosphate, -----                | A. P. Marshall Smicksburg, -----                 |

## PHOSPHATE FERTILIZERS.

phoric Acid.

| Moisture. | PHOSPHORIO ACID. |             |            |             |            |             | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------------|-------------|------------|-------------|------------|-------------|--|-------------------|
|           | TOTAL.           |             | AVAILABLE. |             | INSOLUBLE. |             |  |                   |
|           | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |  |                   |
|           |                  |             |            |             |            |             |  |                   |
| %         | %                | %           | %          | %           | %          | %           |  |                   |
| 7.85      | 15.92            | 15.00       | 15.16      | 14.00       | 0.76       | 1.00        | 16 75  | 4728              |
| 5.63      | 17.77            | 17.00       | 16.65      | 16.00       | 1.12       | 1.00        | 20 00  | 4470              |
| 8.13      | 16.89            | 17.00       | 16.39      | 16.00       | 0.50       | 1.00        | 18 00  | 4612              |
| 7.28      | 18.15            | 17.00       | 16.99      | 16.00       | 1.16       | 1.00        | 23 00  | 4702              |
| 2.42      | 17.42            | 17.00       | 16.56      | 16.00       | 0.86       | 1.00        | 22 00  | 5256              |
| 3.30      | 17.03            | 17.00       | 16.25      | 16.00       | 0.78       | 1.00        | 20 00  | 5222              |
| 3.18      | 16.98            | 17.00       | 16.40      | 16.00       | 0.58       | 1.00        | 25 00  | 5049              |
| 4.00      | 18.04            | 17.00       | 16.83      | 16.00       | 1.16       | 1.00        | 21 00  | 5210              |
| 4.80      | 17.21            | 17.00       | 16.57      | 16.00       | 0.64       | 1.00        | 18 35  | 4767              |
| 6.68      | 17.08            | 17.00       | 16.26      | 16.00       | 0.82       | 1.00        | 18 55  | 5263              |
| 8.19      | 16.33            | 17.00       | *15.21     | 16.00       | 1.12       | 1.00        | 18 00  | 4583              |
| 5.70      | 16.00            | 17.00       | 16.16      | 16.00       | 0.44       | 1.00        | 20 00  | 4763              |
| 7.79      | 16.60            | 17.00       | 16.12      | 16.00       | 0.48       | 1.00        | 19 25  | 4534              |
| 3.50      | 17.26            | 17.00       | 16.01      | 16.00       | 1.25       | 1.00        | 17.50  | 5082              |
| 8.41      | 16.68            | 17.00       | 16.02      | 16.00       | 0.66       | 1.00        | -----  | 4487              |
| 8.31      | 16.21            | 16.50       | 15.97      | 16.00       | 0.24       | 0.50        | 19 00  | 4473              |
| 3.50      | 16.54            | 16.50       | 16.28      | 16.00       | 0.26       | 0.50        | 21 00  | 5034              |
| 5.00      | 17.76            | 16.50       | 16.94      | 16.00       | 0.82       | 0.50        | 21 00  | 4701              |
| 6.80      | 16.54            | 16.50       | 15.98      | 16.00       | 0.56       | 0.50        | 18 25  | 4520              |
| 8.83      | 16.28            | 14.00       | 15.54      | 14.00       | 0.74       | -----       | 18 75  | 4570              |
| 6.78      | 16.93            | 16.00       | 15.91      | 16.00       | 1.02       | -----       | 18 75  | 4543              |
| 8.75      | 16.75            | 16.00       | 16.13      | 16.00       | 0.62       | -----       | 18 45  | 4507              |
| 9.50      | 17.18            | 16.00       | 16.44      | 16.00       | 0.74       | -----       | 20 25  | 4572              |
| 7.13      | 17.27            | 16.00       | 16.87      | 16.00       | 0.40       | -----       | 21 00  | 5059              |
| 5.33      | 18.00            | 16.00       | 16.70      | 16.00       | 1.30       | -----       | 20 00  | 5208              |
| 1.80      | 18.42            | 17.00       | 17.16      | 16.00       | 1.26       | 1.00        | 21 00  | 5201              |
| 3.58      | 17.41            | 17.00       | 16.63      | 16.00       | 0.78       | 1.00        | 24 00  | 5238              |
| 6.58      | 17.53            | 17.00       | 16.31      | 16.00       | 1.22       | 1.00        | 21 00  | 4957              |
| 7.82      | 16.95            | 17.00       | 15.91      | 16.00       | 1.04       | 1.00        | 16 00  | 4656              |
| 10.25     | 16.25            | 16.50       | 16.13      | 16.00       | 0.22       | 0.50        | 20 00  | 4537              |
| 9.65      | 17.11            | 16.50       | 16.93      | 16.00       | 0.18       | 0.50        | -----  | 4896              |
| 6.85      | 16.03            | 16.50       | 16.51      | 16.00       | 0.12       | 0.50        | -----  | 5279              |
| 7.16      | 16.74            | 17.00       | 16.02      | 16.00       | 0.72       | 1.00        | 20 50  | 4503              |
| 6.20      | 17.07            | 17.00       | 16.17      | 16.00       | 0.90       | 1.00        | -----  | 4826              |
| 5.63      | 16.40            | 17.00       | *15.52     | 16.00       | 0.88       | 1.00        | 18 75  | 4716              |

\*Deficient.



TABLE VII.—ACIDULATED

| Chemist's number. | Name of Manufacturer and Brand.  | Sample Taken From—                               |
|-------------------|--|--|
|                   | THE CONSUMERS CHEMICAL, CORPORATION, AFFILIATED WITH VIRGINIA-CAROLINA CHEMICAL CO., NEW YORK, N. Y. |  |
| 4801              | Sampson Brand, -----   | E. H. Johnston, Ulster, -----                    |
|                   | DUMONT FERTILIZER COMPANY, INC., PHILADELPHIA, PA.   |  |
| 4650              | Dumont's Acid Phosphate 16%, -----   | Russell James, Warwick, -----                    |
| 4982              | Dumont's Acid Phosphate 16%, -----   | A . F. Kimmel, Orwigsburg, -----                 |
|                   | EUREKA CHEMICAL COMPANY, BALTIMORE, MD.  |  |
| 4858              | Eureka 10% Acid Phosphate, -----   | W. H. Nesbit, McConnellsburg, -----              |
|                   | GRIFFITH & BOYD CO., BALTIMORE, MD.  |  |
| 5088              | Griffith & Boyd Co.'s High Grade 16% Acid Phosphate, -----   | J. S. Artley, Muncy, -----                       |
| 4552              | Griffith & Boyd Co.'s High Grade 16% Acid Phosphate, -----   | Dayton Milling Co., Dayton, -----                |
| 5069              | Griffith & Boyd Co.'s High Grade 16% Acid Phosphate, -----   | C. A. Geist, Warriors Mark, -----                |
| 4993              | Griffith & Boyd Co.'s High Grade 16% Acid Phosphate, -----   | Geo. A. Wolf & Sons, Mount Wolf, -----           |
|                   | S. M. HESS & BROTHER INC., SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.     |  |
| 4779              | High Grade Acid Phosphate, -----   | C. B. Klinger, McClure, -----                    |
| 4863              | Special High Grade Acid Phosphate, -----   | J. E. Jackson, Everett, -----                    |
|                   | THE HUBBARD FERTILIZER COMPANY, BALTIMORE, MD.   |  |
| 4465              | Hubbard's 16% Acid Phosphate, -----  | Reynoldsville Hardware Co., Reynoldsville, ----- |
| 5056              | Hubbard's 16% Acid Phosphate, -----  | Louis Shearer, South Fork, -----                 |
| 4760              | Hubbard's 16% Acid Phosphate, -----  | E. A. Stambaugh, Green Park, -----               |
|                   | INTERNATIONAL AGRICULTURAL CORPORATION, BUFFALO, N. Y.   |  |
| 4711              | Buffalo Sixteen Percent Acid Phosphate, -----  | Smith Brothers Inc., Bradford, -----             |
|                   | THE JARECKI CHEMICAL CO., (ARMOUR OWNED), SANDUSKY, OHIO.  |  |
| 4559              | Jarecki's 16% Acid Phosphate, -----  | Wm. Gates Estate, Kittanning, -----              |
| 5028              | Jarecki's 16% Acid Phosphate, -----  | Meyer Milling Co., Clearfield, -----             |
|                   | THE KEYSTONE GRANGE EXCHANGE, MANSFIELD, PA.   |  |
| 4530              | Granger's Acid Phosphate, -----  | E. E. Blackburn, Cessna, -----                   |
|                   | LANCASTER BONE FERTILIZER COMPANY, LANCASTER, PA.  |  |
| 4723              | Conestoga Brand High Grade Acid Phosphate, -----   | S. N. Moore, Echo, -----                         |
|                   | THE LANCASTER CHEMICAL COMPANY, LANCASTER, PA.   |  |
| 4636              | No. 16 Phosphoric Acid Special, -----  | A. Willis Gill, Atglen, -----                    |

## PHOSPHATE FERTILIZERS—Continued.

| Moisture. | PHOSPHORIO ACID. |             |            |             |            |             | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------------|-------------|------------|-------------|------------|-------------|--|-------------------|
|           | TOTAL.           |             | AVAILABLE. |             | INSOLUBLE. |             |  |                   |
|           | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |  |                   |
| %         | %                | %           | %          | %           | %          | %           | \$   |                   |
| 2.00      | 22.30            | 21.00       | 21.58      | 20.00       | 0.72       | 1.00        | 21 00  | 4801              |
| 8.14      | 17.86            | 16.50       | 17.00      | 16.00       | 0.96       | 0.50        | 19 50  | 4650              |
| 4.27      | 18.82            | 16.50       | 18.34      | 16.00       | 0.48       | 0.50        | 16 50  | 4982              |
| 4.85      | 16.48            | 16.50       | *15.72     | 16.00       | 0.76       | 0.50        | 18 55  | 4858              |
| 4.82      | 16.63            | 17.00       | 16.23      | 16.00       | 0.30       | 1.00        | 20 00  | 5088              |
| 11.88     | 16.12            | 17.00       | 15.82      | 16.00       | 0.30       | 1.00        | 19 80  | 4552              |
| 1.75      | 17.67            | 17.00       | 17.11      | 16.00       | 0.56       | 1.00        | 16 78  | 5069              |
| 4.14      | 17.08            | 17.00       | 17.16      | 16.00       | 0.52       | 1.00        | 17 00  | 4993              |
| 7.74      | 16.07            | 15.00       | 15.43      | 14.00       | 0.64       | 1.00        | 13 40  | 4779              |
| 5.73      | 17.02            | 17.00       | 15.86      | 16.00       | 1.16       | 1.00        | 20 00  | 4863              |
| 7.62      | 17.23            | 17.00       | 16.35      | 16.00       | 0.88       | 1.00        | 21 00  | 4465              |
| 2.45      | 17.63            | -----       | 16.69      | 16.00       | 0.94       | 1.00        | 24 50  | 5056              |
| 3.37      | 17.58            | -----       | 16.48      | 16.00       | 1.10       | 1.00        | 13 50  | 4760              |
| 6.38      | 16.68            | 17.00       | 16.12      | 16.00       | 0.56       | 1.00        | 22 00  | 4711              |
| 7.91      | 16.20            | 16.50       | 16.02      | 16.00       | 0.18       | 0.50        | 22 00  | 4550              |
| 1.95      | 16.94            | 16.50       | 16.38      | 16.00       | 0.56       | 0.50        | 21 00  | 5028              |
| 10.32     | 16.81            | 16.00       | 16.09      | 16.00       | 0.72       | -----       | 13 45  | 4530              |
| 8.30      | 16.37            | 17.00       | 16.05      | 16.00       | 0.32       | 1.00        | 20 80  | 4723              |
| 8.00      | 17.91            | -----       | 15.97      | 16 00       | 1.94       | 1.00        | 15 00  | 4636              |

\* Deficient

TABLE VII.—ACIDULATED

| Chemist's number. | Name of Manufacturer and Brand.   | Sample Taken From—                                    |
|-------------------|---|---|
|                   | LEBANON FERTILIZER WORKS,<br>LEBANON, PA.   |   |
| 4974              | Levan's Super Phosphate 0-16-0, -----   | I. E. Artz, Hegins, -----                             |
| 4523              | Levan's Super Phosphate 0-16-0, -----   | C. F. Gelbaugh, Duncannon, -----                      |
| 4885              | Levan's Super Phosphate 0-16-0, -----   | Soleman & Walz, Antes Fort, -----                     |
|                   | FRED E. LORD, ESPY, PA.   |   |
| 4903              | Acid Phosphate, -----   | Fred E. Lord, Espy, -----                             |
|                   | THE MILLER FERTILIZER CO., BALTI-<br>MORE, MD.  |   |
| 4510              | Miller's Acid Phosphate 16%, -----  | F. T. Baker, Lewisburg, -----                         |
| 4482              | Miller's Acid Phosphate 16%, -----  | M. L. Bates, Etters, -----                            |
| 4546              | Miller's Acid Phosphate 16%, -----  | Chas. F. Miller, Greencastle, -----                   |
| 4807              | Miller's Acid Phosphate 16%, -----  | Preston Brothers, Canton, -----                       |
|                   | G. OBER & SONS COMPANY, BALTI-<br>MORE, MD.   |   |
| 4942              | Ober's High Grade Acid Phosphate, -----   | Bell Brothers, West Middlesex, -----                  |
|                   | PATAPSCO GUANO COMPANY, SUBSI-<br>DIARY OF THE AMERICAN AGRICUL-<br>TURAL CHEMICAL CO., BALTIMORE,<br>MD. |   |
| 4536              | Patapasco High Grade Acid Phosphate, ----   | Francis Baker, Everett, -----                         |
| 5052              | Patapasco High Grade Acid Phosphate, ----   | Ebensburg Milling & Supply Co., Ebens-<br>burg, ----- |
| 5230              | Patapasco High Grade Acid Phosphate, ----   | Russel Brothers, Washington, -----                    |
| 4512              | Patapasco High Grade Acid Phosphate, ----   | Geo. L. Schell, Vicksburg, -----                      |
|                   | PATUXENT GUANO COMPANAY, BALTI-<br>MORE, MD.  |   |
| 4901              | Patuxent H. G. Acid Phosphate, -----  | E. O. Seaman, Watsontown, -----                       |
|                   | PENNSYLVANIA FARMERS COOPERA-<br>TIVE FEDERATION, INC., PHILADEL-<br>PHIA, PA.                            |   |
| 4955              | P. F. C. F. Acid Phosphate, -----   | Ralph Brenner, Jamestown, -----                       |
| 4782              | P. F. C. F. Acid Phosphate, -----   | J. C. Herpster, Benier, -----                         |
| 4730              | P. F. C. F. Acid Phosphate, -----   | Clark Pollock, Marion Center, -----                   |
| 4967              | P. F. C. F. Acid Phosphate, -----   | L. D. Zehner, Tamaqua, -----                          |
|                   | PIEDMONT MT. AIRY GUANO CO.,<br>BALTIMORE, MD.  |   |
| 4503              | Piedmont 16% Acid Phosphate, -----  | Lehmasters Elevator Co., Lehmasters, --               |
|                   | RASIN—MONUMENTAL CO., SUBSIDIARY<br>OF THE VIRGINIA-CAROLINA CHEM-<br>ICAL CO., BALTIMORE, MD.            |   |
| 4912              | Rasin's 16% Acid Phosphate, -----   | H. B. Low & Son, Orangeville, -----                   |
| 4508              | Rasin's 16% Acid Phosphate, -----   | S. B. Miller, Miiflinburg, -----                      |
| 5135              | Rasin's 16% Acid Phosphate, -----   | Oxford Grain & Hay Co., Oxford, -----                 |
| 4692              | Rasin's 16% Acid Phosphate, -----   | Leonard Ritter, St. Marys, -----                      |
|                   | READING BONE FERTILIZER CO.,<br>READING, PA.  |   |
| 4769              | 16% Clear Acid Phosphate, -----   | H. J. Gray, Honey Grove, -----                        |
| 5225              | 16% Clear Acid Phosphate, -----   | C. A. Niner, Markleysburg, -----                      |
|                   | F.S.ROYSTER GUANO COMPANY, BALTI-<br>MORE, MD.  |   |
| 4933              | Royster's 16% Acid Phosphate, -----   | Simon Eisman, Meadville, -----                        |
| 5084              | Royster's 16% Acid Phosphate, -----   | McConnell Brothers, Hughesville, -----                |

## PHOSPHATE FERTILIZERS—Continued.

| Moisture. | PHOSPHORIC ACID. |             |            |             |            |             | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------------|-------------|------------|-------------|------------|-------------|--|-------------------|
|           | TOTAL.           |             | AVAILABLE. |             | INSOLUBLE. |             |  |                   |
|           | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |  |                   |
| %         | %                | %           | %          | %           | %          | %           | \$   |                   |
| 5.82      | 17.53            | 17.00       | 16.01      | 16.00       | 1.52       | 1.00        | -----  | 4974              |
| 8.13      | 16.21            | 17.00       | *15.75     | 16.00       | 0.46       | 1.00        | 17 00  | 4523              |
| 5.98      | 16.85            | 17.00       | 16.15      | 16.00       | 0.70       | 1.00        | 18 85  | 4883              |
| 6.88      | 16.66            | 16.50       | 16.42      | 16.00       | 0.24       | 0.50        | 16 00  | 4903              |
| 6.23      | 16.48            | 16.50       | *15.68     | 16.00       | 0.80       | 0.50        | 20 00  | 4516              |
| 7.10      | 16.67            | 16.50       | *15.79     | 16.00       | 0.88       | 0.50        | 17 50  | 4482              |
| 6.30      | 16.75            | 16.50       | 15.99      | 16.00       | 0.76       | 0.50        | 19 00  | 4546              |
| 2.98      | 17.20            | 16.50       | 16.14      | 16.00       | 1.06       | 0.50        | 18 50  | 4807              |
| 7.04      | 17.22            | 17.00       | 16.86      | 16.00       | 0.36       | 1.00        | 20 50  | 4942              |
| 8.48      | 16.90            | 17.00       | 16.22      | 16.00       | 0.68       | 1.00        | 20 00  | 4536              |
| 1.86      | 17.86            | 17.00       | 17.16      | 16.00       | 0.70       | 1.00        | 24 55  | 5052              |
| 4.05      | 17.08            | 17.00       | 16.42      | 16.00       | 0.66       | 1.00        | 24 00  | 5236              |
| 8.45      | 16.35            | 17.00       | *15.71     | 16.00       | 0.64       | 1.00        | 17 65  | 4512              |
| 3.90      | 17.60            | 17.00       | 16.50      | 16.00       | 1.10       | 1.00        | 18 00  | 4901              |
| 7.35      | 17.53            | 17.00       | 16.63      | 16.00       | 0.90       | 1.00        | 18 25  | 4955              |
| 4.28      | 17.44            | 17.00       | 16.60      | 16.00       | 0.84       | 1.00        | 16 45  | 4782              |
| 5.85      | 17.14            | 17.00       | 16.22      | 16.00       | 0.92       | 1.00        | 17 40  | 4730              |
| 4.17      | 17.97            | 17.00       | 17.21      | 16.00       | 0.76       | 1.00        | -----  | 4967              |
| 6.38      | 16.75            | 17.00       | 16.25      | 16.00       | 0.50       | 1.00        | 18 50  | 4593              |
| 7.37      | 17.34            | 17.00       | 16.56      | 16.00       | 0.78       | 1.00        | 18 00  | 4912              |
| 8.50      | 16.74            | 17.00       | 15.93      | 16.00       | 0.82       | 1.00        | 17 90  | 4508              |
| 4.86      | 17.72            | 17.00       | 17.08      | 16.00       | 0.64       | 1.00        | 16 00  | 5135              |
| 5.86      | 16.91            | 17.00       | 16.35      | 16.00       | 0.56       | 1.00        | 20 00  | 4692              |
| 7.16      | 16.49            | 17.00       | 16.25      | 16.00       | 0.24       | 1.00        | 18 50  | 4769              |
| 4.27      | 17.35            | 17.00       | 16.19      | 16.00       | 1.16       | 1.00        | 20 80  | 5225              |
| 1.70      | 17.04            | 16.50       | 16.70      | 16.00       | 0.34       | 0.50        | 20 00  | 4933              |
| 1.77      | 17.08            | 16.50       | 16.68      | 16.00       | 0.40       | 0.50        | 19 00  | 5084              |

\* Deficient

TABLE VII.—ACIDULATED

| Chemist's number. | Name of Manufacturer and Brand.  | Sample Taken From—   |
|-------------------|--|--|
| 4606              | Royster's 16% Acid Phosphate, -----  | Harvey L. Moses, Chester Springs, -----                                |
| 4833              | Royster's 16% Acid Phosphate, -----  | Wyalusing Hay Co., Wyalusing, -----                                    |
| 4796              | Royster's 18% Acid Phosphate, -----  | John Dale, State College, -----  |
|                   | SCHAAL-SHELDON FERTILIZER CO.,<br>SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., BUFFALO, N. Y. |  |
| 4963              | Soluble Phosphate, -----   | J. B. Houston, Harrisville, -----                                      |
| 4687              | Soluble Phosphate, -----   | Keitner & Johnson, Port Allegany, -----                                |
|                   | THE SCOTT FERTILIZER COMPANY,<br>ELKTON, MD.   |  |
| 4633              | Scott's Tip Top Soluble Phosphate 16%, --  | Marion Griest, Christiana, -----                                       |
|                   | STANDARD CHEMICAL WORKS, INC.,<br>WOMELSDORF, PA.  |  |
| 4594              | Reading Clear Acid Phosphate, -----  | Isaac Hefelfinger, Myerstown, -----                                    |
|                   | SWIFT & COMPANY, BALTIMORE, MD.  |  |
| 5193              | Swift's High Grade Acid Phosphate Fertilizer, -----  | J. W. Cook, Lake Ariel, -----  |
| 4852              | Swift's High Grade Acid Phosphate Fertilizer, -----  | Dayton Milling Co., Towanda, -----                                     |
| 5285              | Swift's High Grade Acid Phosphate Fertilizer, -----  | John Houseknecht, Conyngham, -----                                     |
| 5106              | Swift's High Grade Acid Phosphate Fertilizer, -----  | S. F. McIrony, Middlebury Center, -----                                |
| 5160              | Swift's High Grade Acid Phosphate Fertilizer, -----  | Pomona Grange Exchange No. 3, West Chester, -----                      |
|                   | I. P. THOMAS & SON COMPANY, PHILADELPHIA, PA.  |  |
| 5111              | 16% Acid Phosphate, -----  | J. T. King, Lawrenceville, -----                                       |
|                   | F.W.TUNNELL & COMPANY, INC.,<br>PHILADELPHIA, PA.  |  |
| 4653              | 16% Acid Phosphate, -----  | L. R. Levengood, Pottstown, -----                                      |
|                   | UNITED STATES GUANO CO., BALTIMORE, MD.  |  |
| 5306              | Standard United States 16% Acid Phosphate, -----   | McKean County Sheep & Wool Growers Association, Inc., Smethport, ----- |
|                   | VIRGINIA-CAROLINA CHEMICAL COMPANY, (OF DELAWARE), BALTIMORE, MD.                                      |  |
| 4930              | V. C. Star Brand, -----  | Cochranton Milling Co., Cochranton, --                                 |
| 4697              | V. C. Universal Brand, -----   | L. A. Chase & Son, Russell, -----                                      |
|                   | WASHINGTON, ALEXANDER & COOKE CO., CHARLES TOWN, W. VA.  |  |
| 4931              | Waco Superphosphate, -----   | Cochranton Milling Co., Cochranton, ----                               |
| 4579              | Waco Superphosphate, -----   | E. S. Kelly, Gettysburg, -----   |
|                   | YORK CHEMICAL WORKS, YORK, PA.   |  |
| 4805              | Acid Phosphate 16%, -----  | C. L. Allen, Powell, -----   |
| 4589              | Acid Phosphate 16%, -----  | Enos H. Horst, Chambersburg, -----                                     |
| 4997              | Acid Phosphate 16%, -----  | Manchester Grange Cooperative Association, Emigsville, -----           |
| 5139              | Acid Phosphate 16%, -----  | Harry Pyle & Sons, Chadds Ford, -----                                  |
| 5007              | Acid Phosphate 18%, -----  | H. E. Weithknecht, Northampton, -----                                  |
|                   |  | Average, -----   |



## PHOSPHATE FERTILIZERS—Continued.

| Moisture. | PHOSPHORIC ACID. |             |            |             |            |             | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------------|-------------|------------|-------------|------------|-------------|--|-------------------|
|           | Total.           |             | Available. |             | Insoluble. |             |  |                   |
|           | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |  |                   |
| %         | %                | %           | %          | %           | %          | %           | \$   |                   |
| 5.45      | 16.52            | 16.50       | 16.00      | 16.00       | 0.52       | 0.50        | 20 00  | 4666              |
| 1.08      | 16.74            | 16.50       | 16.52      | 16.00       | 0.22       | 0.50        | 18 00  | 4833              |
| 4.94      | 19.39            | 18.50       | 19.07      | 18.00       | 0.32       | 0.50        | 21 00  | 4796              |
|           |                  |             |            |             |            |             |  |                   |
| 2.90      | 17.16            | 17.00       | 16.48      | 16.00       | 0.68       | 1.00        | 21 00  | 4963              |
| 4.43      | 16.23            | 17.00       | *15.27     | 16.00       | 0.96       | 1.00        | -----  | 4687              |
|           |                  |             |            |             |            |             |  |                   |
| 5.40      | 16.63            | -----       | *15.67     | 16.00       | 0.96       | 1.00        | 14 60  | 4633              |
|           |                  |             |            |             |            |             |  |                   |
| 7.63      | 16.80            | 17.00       | 15.90      | 16.00       | 0.90       | 1.00        | -----  | 4594              |
|           |                  |             |            |             |            |             |  |                   |
| 6.47      | 16.44            | 16.00       | 16.38      | 16.00       | 0.06       | -----       | 17 50  | 5196              |
| 5.85      | 16.71            | 16.00       | 16.67      | 16.00       | 0.04       | -----       | 19 00  | 4852              |
| 4.21      | 16.83            | 16.00       | 16.79      | 16.00       | 0.04       | -----       | 16 50  | 5285              |
| 6.50      | 16.38            | 16.00       | 16.32      | 16.00       | 0.06       | -----       | 20 00  | 5106              |
| 2.50      | 17.11            | 16.00       | 16.97      | 16.00       | 0.14       | -----       | 15 75  | 5160              |
|           |                  |             |            |             |            |             |  |                   |
| 3.20      | 17.92            | 16.50       | 16.20      | 16.00       | 1.72       | 0.50        | 20 00  | 5111              |
|           |                  |             |            |             |            |             |  |                   |
| 9.52      | 16.47            | 17.00       | 16.20      | 16.00       | 0.27       | 1.00        | 20 00  | 4653              |
|           |                  |             |            |             |            |             |  |                   |
| 5.73      | 17.23            | -----       | 17.17      | 16.00       | 0.06       | 0.50        | 17 50  | 5306              |
|           |                  |             |            |             |            |             |  |                   |
| 5.50      | 21.23            | 21.00       | 20.47      | 20.00       | 0.76       | 1.00        | 24 45  | 4930              |
| 1.01      | 17.32            | 17.00       | 16.76      | 16.00       | 0.56       | 1.00        | 24 00  | 4697              |
|           |                  |             |            |             |            |             |  |                   |
| 2.55      | 16.40            | 17.00       | 16.26      | 16.00       | 0.14       | 1.00        | 19 50  | 4931              |
| 8.82      | 15.80            | 17.00       | *15.74     | 16.00       | 0.06       | 1.00        | -----  | 4579              |
|           |                  |             |            |             |            |             |  |                   |
| 8.90      | 16.76            | 16.00       | 16.04      | 16.00       | 0.72       | -----       | 19 00  | 4805              |
| 10.40     | 16.38            | 16.00       | 15.94      | 16.00       | 0.44       | -----       | 18 50  | 4589              |
| 2.40      | 18.89            | 16.00       | 18.73      | 16.00       | 0.16       | -----       | 16 50  | 4997              |
|           |                  |             |            |             |            |             |  |                   |
| 1.99      | 18.00            | 16.00       | 17.56      | 16.00       | 0.44       | -----       | 18 00  | 5139              |
| 7.42      | 18.43            | 18.00       | 17.87      | 18.00       | 0.56       | -----       | 19 50  | 5007              |
| 5.76      | 17.15            | -----       | 16.43      | -----       | 0.67       | -----       | \$19 26                                      | -----             |

\* Deficient

TABLE VII.—ACIDULATED

| Chemist's number. | Name of Manufacturer and Brand.  | Sample Taken From—                         |
|-------------------|--|--|
|                   | LOW GRADE FORMULAS.  |  |
|                   | THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.                                      |  |
| 4620              | Basic Lime Phosphate, -----  | Edward W. Brinton & Son, West Chester.     |
| 4495              | Basic Lime Phosphate, -----  | Elmer Crone, Wellsville, -----             |
| 5053              | Basic Lime Phosphate, -----  | Stultz Brothers, Hollidaysburg, -----      |
| 5224              | Bowker's Lime Phosphate, -----   | Meyersdale Hardware, Meyersdale, -----     |
| 4786              | Bowker's Lime Phosphate, -----   | Yerger Brothers, Middleburg, -----         |
| 5047              | Lister's Lime Phosphate, -----   | Ebensburg Milling & Supply Co., Ebensburg. |
| 4533              | Woolridge's Lime Phosphate, -----  | S. C. Exline, Imber, -----                 |
| 4480              | Woolridge's Lime Phosphate, -----  | Robert Wentz, Wellsville, -----            |
|                   | ARMOUR FERTILIZER WORKS, BALTIMORE, MD.  |  |
| 4878              | Armour's Lime Phosphate Fertilizer, -----  | A. F. Wentz, Jersey Shore, -----           |
|                   | GRIFFITH & BOYD CO., BALTIMORE MD.   |  |
| 4556              | Griffith & Boyd Co.'s Basic Lime Phosphate.  | Wm. Gates Estate, Kittanning, -----        |
|                   | PATAPSCO GUANO COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., BALTIMORE, MD. |  |
| 4499              | Patasco Lime Phosphate Crow Brand, ----  | A. L. Knaub, Wellsville, -----             |
|                   | RAISIN-MONUMENTAL CO., SUBSIDIARY OF THE VIRGINIA-CAROLINA CHEMICAL CO., BALTIMORE, MD.      |  |
| 4609              | Raisin's Phospho Tobacco, -----  | Oxford Grain & Hay Co., Oxford, -----      |
|                   |  | Average, -----                             |
|                   |  | Total Average, -----                       |

## PHOSPHATE FERTILIZERS—Concluded.

| Moisture. | PHOSPHORIC ACID. |             |            |             |            |             | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------------|-------------|------------|-------------|------------|-------------|--|-------------------|
|           | Total.           |             | Available. |             | Insoluble. |             |  |                   |
|           | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |  |                   |
| %         | %                | %           | %          | %           | %          | %           | c  |                   |
| 4.05      | 14.73            | 14.00       | 13.41      | 13.00       | 1.32       | 1.00        | 18 00  | 4620              |
| 5.52      | 14.87            | 14.00       | 13.83      | 13.00       | 1.04       | 1.00        |  | 4495              |
| 1.30      | 14.63            | 14.00       | 12.99      | 13.00       | 1.64       | 1.00        | 21 06  | 5063              |
| 3.34      | 15.63            | 14.00       | *12.53     | 13.00       | 2.50       | 1.00        | 20 00  | 5224              |
| 1.00      | 14.39            | 14.00       | 13.59      | 13.00       | 0.80       | 1.00        | 19 00  | 4786              |
| 1.85      | 14.78            | 14.00       | *12.86     | 13.00       | 2.42       | 1.00        | 25 00  | 5047              |
| 5.73      | 14.30            | 14.00       | 13.22      | 13.00       | 1.08       | 1.00        | 19 50  | 4533              |
| 7.18      | 15.10            | 14.00       | 13.84      | 13.00       | 1.26       | 1.00        |  | 4486              |
| 3.75      | 14.30            | 13.50       | *11.65     | 13.00       | 2.65       | 0.50        | 22 00  | 4878              |
| 8.23      | 15.01            | 14.00       | 14.27      | 13.00       | 0.74       | 1.00        | 24 50  | 4556              |
| 6.81      | 14.45            | 14.00       | 13.23      | 13.00       | 1.22       | 1.00        |  | 4499              |
| 6.63      | 14.71            | 14.00       | 13.77      | 13.00       | 0.94       | 1.00        | 18 00  | 4669              |
| 4.61      | 14.69            |             | 13.22      |             | 1.47       |             | \$20 78                                      |                   |
| 5.64      | 16.90            |             | 16.15      |             | 0.75       |             | \$19 39                                      |                   |

\*Deficient.

TABLE VIII.—ROCK AND  
Furnishing Phosphoric

| Chemist's number.   | Name of Manufacturer and Brand.                | Sample Taken From—                                |
|---|--|---|
| HIGH GRADE FORMULAS.  |  |   |
| THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.   |  |   |
| 4774  | Lister's Atlas Brand Alkaline Fertilizer, ---- | R. K. Yoder, Belleville, -----                    |
| 5262  | Victory Phosphate and Potash, -----            | H. E. Newman, West Salisbury, -----               |
| 5178  | Victory Phosphate and Potash, -----            | H. P. Passmore & Brother, Oxford, ----            |
| 4497  | Victory Phosphate and Potash, -----            | W. P. Spahr, Dillsburg, -----                     |
| 4488  | Woolridge's Grain and Grass Producer, ----     | Robert Wentz, Wellsville, -----                   |
| 5220  | XXX Phosphate and Potash, -----                | Meyersdale Hardware, Meyersdale, -----            |
| 4704  | XXX Phosphate and Potash, -----                | Union City Coal & Supply Co., Union City, -----   |
| 4764  | XXX Phosphate and Potash, -----                | Walter Winey, Mexico, -----                       |
| ARMOUR FERTILIZER WORKS, BALTIMORE, MD.   |  |   |
| 4936  | Aromur's Big Crop Fertilizer 0-12-4, -----     | Simon Elsmen, Meadville, -----                    |
| 4899  | Armour's Big Crop Fertilizer 0-12-4, -----     | Hershey Department Store, Hershey, ----           |
| BAUGH & SONS COMPANY, PHILADELPHIA, PA.   |  |   |
| 4920  | Baugh's 12 and 5 Phosphate and Potash Mixture. | H. B. Low & Son, Orangeville, -----               |
| BOWKER FERTILIZER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.    |  |   |
| 4956  | Bowker's Ten and Eight, -----                  | Smith Patterson, Mercer, -----                    |
| CENTRAL CHEMICAL CO., HAGERS-TOWN, MD.  |  |   |
| 5043  | Gro-All Potash Special, -----                  | M. R., Brumbaugh, Martinsburg, -----              |
| THE COE-MORTIMER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.     |  |   |
| 4613  | E. Frank Coe's Ten and Eight, -----            | John Roth, Hamburg, -----                         |
| THE CONSUMERS CHEMICAL CORPORATION, AFFILIATED WITH VIRGINIA-CAROLINA CHEMICAL CO., NEW YORK, N. Y. |  |   |
| 4825  | Alkaline Phosphate, -----                      | Farmers Supply Co., Milan, -----                  |
| DUMONT FERTILIZER CO., INC., PHILADELPHIA, PA.  |  |   |
| 4618  | 12-5, -----                                    | Russell James, Warwick, -----                     |
| GRIFFITH & BOYD CO., BALTIMORE, MD.   |  |   |
| 4555  | Griffith & Boyd Co.'s XX Potash Manure,--      | Dayton Milling Co., Dayton, -----                 |
| 4694  | Griffith & Boyd Co.'s XX Potash Manure,--      | Geo. A. Wolf & Sons, Mount Wolf, ----             |
| S. M. HESS & BROTHER INC., SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW, N. Y.         |  |   |
| 5282  | Best Phosphate and Potash Mixture, -----       | Chas. J. Tressler, Conyngham, -----               |
| THE HUBBARD FERTILIZER COMPANY BALTIMORE, MD.   |  |   |
| 4940  | Hubbard's High Grade Potash Mixture, ----      | Coulter & Coulter, Grove City, -----              |
| 4468  | Hubbard's High Grade Potash Mixture, ----      | Reynoldsville Hardware Co., Reynolds-ville, ----- |
| 4928  | Hubbard's 12-5 Alkaline, -----                 | Cochranon Milling Co., Cochranon, ----            |

## POTASH FERTILIZERS.

Acid and Potash.

| Moisture. | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
|           | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as sulphate. |  |                   |
|           | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
| %.        | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 7.00      | 12.68            | 13.00       | 11.82      | 12.00       | 0.86       | 1.00        | 5.76    | 5.00        | 5.76                | -----                | 26 50  | 4774              |
| 7.47      | 12.62            | 13.00       | 11.94      | 12.00       | 0.98       | 1.00        | 5.71    | 5.00        | 5.71                | -----                | 26 45  | 5262              |
| 6.55      | 12.60            | 13.00       | *11.72     | 12.00       | 0.88       | 1.00        | 5.80    | 5.00        | 5.80                | -----                | 25 00  | 5178              |
| 9.00      | 12.73            | 13.00       | 12.01      | 12.00       | 0.72       | 1.00        | 5.57    | 5.00        | 5.57                | -----                |  | 4497              |
| 7.70      | 10.77            | 11.00       | 10.35      | 10.00       | 0.42       | 1.00        | *3.77   | 4.00        | 3.77                | -----                |  | 4483              |
| 8.20      | 11.45            | 11.00       | 10.31      | 10.00       | 1.14       | 1.00        | 7.95    | 8.00        | 7.95                | -----                | 30 00  | 5220              |
| 4.46      | 10.56            | 11.00       | 10.02      | 10.00       | 0.54       | 1.00        | 8.43    | 8.00        | 8.43                | -----                | 32 00  | 4704              |
| 7.77      | 11.11            | 11.00       | 10.05      | 10.00       | 1.06       | 1.00        | 8.17    | 8.00        | 8.17                | -----                | 26 35  | 4764              |
| 8.39      | 12.95            | 12.50       | 12.17      | 12.00       | 0.78       | 0.50        | 4.50    | 4.00        | 4.50                | -----                | 27 00  | 4996              |
| 5.40      | 12.18            | 12.50       | 11.98      | 12.00       | 0.29       | 0.50        | 4.02    | 4.00        | 4.02                | -----                | 27 00  | 4899              |
| 6.85      | 12.40            | 12.00       | 11.94      | 12.00       | 0.46       | -----       | 5.92    | 5.00        | 5.92                | -----                | 25 50  | 4920              |
| 5.82      | 9.69             | 11.00       | *9.15      | 10.00       | 0.54       | 1.00        | 8.91    | 8.00        | 8.91                | -----                |  | 4956              |
| 4.65      | 12.37            | 12.50       | 12.13      | 12.00       | 0.24       | 0.50        | 5.98    | 5.00        | 5.98                | -----                |  | 5043              |
| 7.33      | 10.36            | 11.00       | 9.82       | 10.00       | 0.54       | 1.00        | 9.60    | 8.00        | 9.60                | -----                |  | 4613              |
| 8.65      | 13.05            | 13.00       | 12.01      | 12.00       | 1.04       | 1.00        | 6.08    | 5.00        | 6.08                | -----                | 29 00  | 4825              |
| 6.32      | 12.44            | 12.50       | *11.76     | 12.00       | 0.68       | 0.50        | 5.13    | 5.00        | 5.13                | -----                | 27 50  | 4648              |
| 9.95      | 10.63            | 11.00       | 10.27      | 10.00       | 0.36       | 1.00        | 5.64    | 5.00        | 5.64                | -----                | 26 05  | 4555              |
| 5.16      | 10.82            | 11.00       | 10.68      | 10.00       | 0.14       | 1.00        | 5.72    | 5.00        | 5.72                | -----                | 24 00  | 4994              |
| 4.17      | 10.57            | 11.00       | 9.93       | 10.00       | 0.64       | 1.00        | 8.90    | 8.00        | 8.90                | -----                | 26 00  | 5282              |
| 5.67      | 10.97            | 11.00       | 10.13      | 10.00       | 0.84       | 1.00        | 4.64    | 4.00        | 4.64                | -----                | 32 50  | 4910              |
| 8.01      | 11.28            | 11.00       | 10.32      | 10.00       | 0.96       | 1.00        | 3.98    | 4.00        | 3.98                | -----                | 30 00  | 4468              |
| 8.00      | 13.16            | 13.00       | 12.08      | 12.00       | 1.08       | 1.00        | 5.64    | 5.00        | 5.64                | -----                | 27 90  | 4928              |

\*Deficient.



TABLE VIII.—ROCK AND

| Chemist's number. | Name of Manufacturer and Brand.  | Sample Taken From—                    |
|-------------------|--|---------------------------------------|
| 4713              | INTERNATIONAL AGRICULTURAL CORPORATION, BUFFALO, N. Y.<br>I. A. C. Extra P and P, -----  | Smith Brothers Inc., Bradford, -----  |
| 4531              | KEYSTONE GRANGE EXCHANGE,<br>MANSFIELD, PA.<br>Grangers Superior, -----  | E. E. Blackburn, Cessna, -----        |
| 4725              | LANCASTER BONE FERTILIZER COMPANY, LANCASTER, PA.<br>Conestoga Brand KEYSTONE, -----   | S. N. Moore, Echo, -----              |
| 4608              | LEBANON FERTILIZER WORKS,<br>LEBANON, PA.<br>Levan's Peerless Potash Mixture, -----  | A. J. Wolf, Lickdale, -----           |
| 5273              | Levan's Standard Potash Compound 0-12-4, -----   | Harrison Homm, Lehighton, -----       |
| 4904              | FRED E. LORD, ESPY, PA.<br>Columbia County Fall Special, -----   | Fred E. Lord, Espy, -----             |
| 5075              | THE MILLER FERTILIZER CO.,<br>BALTIMORE, MD.<br>Miller's 0-12-5, -----   | H. L. Ort, Pennsdale, -----           |
| 5192              | OXFORD PACKING WORKS,<br>OXFORD, PA.<br>O. P. W. Rock and Potash, -----  | Wm. H. Hanson, Oxford, -----          |
| 4913              | RAISIN MONUMENTAL CO., SUBSIDIARY<br>OF THE VIRGINIA-CAROLINA CHEMICAL CO., BALTIMORE, MD.<br>Raisin's Special Phosphate and Potash, ----- | H. B. Low & Son, Orangeville, -----   |
| 4672              | Raisin's Special Phosphate and Potash, -----   | Oxford Grain & Hay Co., Oxford, ----- |
| 4771              | READING BONE FERTILIZER CO.,<br>READING, PA.<br>Economy Brand, -----   | Harry N. Moyer, Walnut, -----         |
| 5227              | High Grade Potash Mixture, -----   | C. A. Niner, Markleysburg, -----      |
| 4989              | ROBERT A. REICHARD, INC.,<br>ALLENTOWN, PA.<br>Reichard's Ideal Phosphate, -----   | Dennes Stohl, Lehighton, -----        |
| 5291              | F. S. ROYSTER GUANO COMPANY,<br>BALTIMORE, MD.<br>12-5 Phosphate and Potash, -----   | E. W. Hill, Beach Haven, -----        |
| 4632              | THE SCOTT FERTILIZER COMPANY,<br>ELKTON, MD.<br>Scott's Soluble Phosphate and Potash 12.5. -----   | Marion Griest, Christiana, -----      |
| 5013              | VIRGINIA-CAROLINA CHEMICAL CO. (OF<br>DELAWARE), NEW YORK, N. Y.<br>V. C. Comet Brand, -----   | J. O. Dewalt, Bethlehem, -----        |
| 4581              | WASHINGTON, ALEXANDER & COOKE<br>CO., CHARLES TOWN, W. VA.<br>Waco Eight and Six, -----  | E. S. Kelly, Gettysburg, -----        |
|                   |  | Average, -----                        |

## POTASH FERTILIZERS—Continued.

| Moisture. | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
|           | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as sulphate. |  |                   |
|           | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
| %         | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 6.04      | 11.03            | 11.00       | 10.55      | 10.00       | 0.48       | 1.00        | 8.64    | 8.00        | 8.64                | -----                | 34 00  | 4713              |
| 7.05      | 12.67            | 12.00       | 12.19      | 12.00       | 0.48       | -----       | 5.67    | 5.00        | 5.67                | -----                | 25 63  | 4531              |
| 7.19      | 10.24            | 11.00       | 10.01      | 10.00       | 0.23       | 1.00        | 4.60    | 4.00        | 4.60                | -----                | 27 30  | 4725              |
| 6.72      | 10.19            | 11.00       | 10.05      | 10.00       | 0.14       | 1.00        | 8.35    | 8.00        | 8.35                | -----                | 25 30  | 4608              |
| 4.15      | 12.28            | 13.00       | 12.00      | 12.00       | 0.28       | 1.00        | 4.98    | 4.00        | 4.98                | -----                | -----  | 5273              |
| 6.55      | 13.53            | 12.50       | 13.37      | 12.00       | 0.16       | 0.50        | 5.96    | 5.00        | 5.96                | -----                | 22 00  | 4904              |
| 4.52      | 12.21            | 12.50       | *11.29     | 12.00       | 0.92       | 0.50        | 5.42    | 5.00        | 5.42                | -----                | -----  | 5075              |
| 3.98      | 11.42            | 10.50       | 10.96      | 10.00       | 0.46       | 0.50        | 6.03    | 5.00        | 6.03                | -----                | 22 00  | 5192              |
| 4.13      | 11.38            | 11.00       | *9.52      | 10.00       | 1.86       | 1.00        | 5.33    | 5.00        | 5.33                | -----                | 24 25  | 4913              |
| 7.05      | 11.94            | 11.00       | 10.20      | 10.00       | 1.74       | 1.00        | 5.40    | 5.00        | 5.40                | -----                | 26 00  | 4672              |
| 6.00      | 10.61            | 11.00       | *9.56      | 10.00       | 1.05       | 1.00        | *3.78   | 4.00        | 3.78                | -----                | 21 60  | 4771              |
| 5.75      | 11.30            | 13.00       | *10.78     | 12.00       | 0.52       | 1.00        | 8.99    | 8.00        | 8.99                | -----                | 31 00  | 5227              |
| 6.85      | 13.13            | -----       | *11.59     | 12.00       | 1.54       | 1.00        | 5.53    | 5.00        | 5.53                | -----                | -----  | 4989              |
| 4.81      | 13.25            | 12.50       | 12.37      | 12.00       | 0.88       | 0.50        | 5.18    | 5.00        | 5.18                | -----                | 24 00  | 5291              |
| 4.75      | 12.67            | -----       | 11.87      | 12.00       | 0.80       | 1.00        | 5.23    | 5.00        | 5.23                | -----                | 21 50  | 4632              |
| 6.67      | 11.35            | 11.00       | 10.25      | 10.00       | 1.10       | 1.00        | 8.91    | 8.00        | 8.91                | -----                | 27 60  | 5013              |
| 2.57      | 7.99             | 9.00        | 7.82       | 8.00        | 0.17       | 1.00        | 6.00    | 6.00        | 6.00                | -----                | -----  | 4581              |
| 6.34      | 11.66            | -----       | 10.95      | -----       | 0.71       | -----       | 6.15    | -----       | -----               | -----                | 26 70  | -----             |

\*Deficient.

TABLE VIII.—ROCK AND

| Chemist's number.   | Name of Manufacturer and Brand.                   | Sample Taken From—                             |
|---|---|--|
| LOW GRADE FORMULAS.   |   |  |
| THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.   |   |  |
| 5299  | Big Crop Phosphate, -----                         | Frank Laudig, Ringtown, -----                  |
| 4863  | Dissolved Phosphate and Potash, -----             | Lloyd C. Diehl, Lutzville, -----               |
| 4865  | Gem Alkaline Phosphate, -----                     | H. F. Gump & Son, Everett, -----               |
| 4502  | Lister's Grain and Grass Fertilizer, -----        | W. T. Balsiger, Apollo, -----                  |
| 4585  | Lister's Grain and Grass Fertilizer, -----        | Shippensburg Elevator Co., Shippensburg, ----- |
| 4949  | Milsom's Crown Phosphate, -----                   | W. A. Bright, Greenville, -----                |
| 5079  | Woolridge's No. 2 Phosphate and Potash, -----     | B. L. Shipman, Muney, -----                    |
| BAUGH & SONS COMPANY, PHILADELPHIA, PA.   |   |  |
| 4922  | Baugh's Soluble Alkaline Super Phosphate, -----   | H. B. Low & Son, Orangeville, -----            |
| 4592  | Baugh's Soluble Alkaline Super Phosphate, -----   | S. F. Peckinan, Williamson, -----              |
| BOWKER FERTILIZER COMPANY, SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.  |   |  |
| 5228  | Bowker's Super-Phosphate with Potash, ---         | Taylor Pepper, Fredericktown, -----            |
| CENTRAL CHEMICAL CO., HAGERSTOWN, MD.   |   |  |
| 5041  | Gro-All Commonwealth, -----                       | M. R. Brumbaugh, Martinsburg, -----            |
| 4542  | Gro-All Pioneer, -----                            | Mercersburg Elevator Co., Mercersburg, ---     |
| 5092  | Gro-All Pioneer, -----                            | J. E. Raker, Trout Run, -----                  |
| DUMONT FERTILIZER CO., INC., PHILADELPHIA, PA.  |   |  |
| 4645  | 10-2, -----                                       | Russell James, Warwick, -----                  |
| FARMERS FERTILIZER WORKS, ELIZABETHTOWN, PA.  |   |  |
| 4772  | Farmers Economy, -----                            | Belleville Flour Mills Co., Belleville, ---    |
| GRIFFITH & BOYD CO., BALTIMORE MD.  |   |  |
| 4902  | Griffith & Boyd Co.'s Special Grain Grower, ----- | Geo. A. Wolf & Sons, Mount Wolf, -----         |
| S. M. HESS & BROTHER, INC., SUBSIDIARY OF THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y. |   |  |
| 4509  | Soluble Phosphate and Potash, -----               | J. R. Iddings, Mifflinburg, -----              |
| PATUXENT GUANO COMPANY, BALTIMORE, MD.  |   |  |
| 4902  | Alsation Potash Mixture, -----                    | E. O. Seaman, Watsontown, -----                |
| RAISIN-MONUMENTAL CO., SUBSIDIARY OF THE VIRGINIA-CAROLINA CHEMICAL CO., BALTIMORE, MD.           |   |  |
| 4911  | Raisin's Phosphate and Potash Fertilizer, --      | H. B. Low & Son, Orangeville, -----            |
| 4668  | Raisin's Phosphate and Potash Fertilizer, --      | Oxford Grain & Hay Co., Oxford, -----          |
| F. S. ROYSTER GUANO COMPANY, BALTIMORE, MD.   |   |  |
| 4681  | Royster's 8-5 Phosphate and Potash, -----         | Geo. S. Chalfont, Milton, -----                |
| 4707  | Royster's 8-5 Phosphate and Potash, -----         | Tionesta Milling Co., Tionesta, -----          |
| 4872  | Royster's 10-2 Phosphate and Potash, -----        | Glossner Implement Co., Lock Haven, --         |

## POTASH FERTILIZERS—Continued.

| Moisture. | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
|           | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as Muriate. | Present as Sulphate. |  |                   |
|           | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
| %         | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 3.14      | 8.83             | 9.00        | 8.07       | 8.00        | 0.76       | 1.00        | 5.88    | 5.00        | 5.88                | -----                | -----  | 5299              |
| 3.58      | 10.79            | 11.00       | 10.05      | 10.00       | 0.74       | 1.00        | 2.20    | 2.00        | 2.20                | -----                | -----  | 4869              |
| 4.51      | 7.49             | 7.00        | 6.85       | 6.00        | 0.64       | 1.00        | 3.39    | 3.00        | 3.39                | -----                | 21 50  | 4865              |
| 7.40      | 9.66             | 11.00       | *9.00      | 10.00       | 0.66       | 1.00        | 2.79    | 2.00        | 2.79                | -----                | 24 00  | 4562              |
| 8.43      | 10.74            | 11.00       | 10.18      | 10.00       | 0.56       | 1.00        | 3.42    | 2.00        | 3.42                | -----                | 25 00  | 4585              |
| 6.25      | 10.59            | 11.00       | 10.17      | 10.00       | 0.42       | 1.00        | 2.34    | 2.00        | 2.34                | -----                | 27 00  | 4949              |
| 3.25      | 8.47             | 9.00        | *7.75      | 8.00        | 0.72       | 1.00        | 5.53    | 5.00        | 5.33                | -----                | 22 11  | 5079              |
| 6.80      | 10.69            | 10.00       | 9.95       | 10.00       | 0.74       | -----       | 2.45    | 2.00        | 2.45                | -----                | 22 25  | 4922              |
| 5.00      | 10.49            | 10.00       | 9.81       | 10.00       | 0.68       | -----       | 2.24    | 2.00        | 2.24                | -----                | 22 40  | 4592              |
| 6.17      | 10.68            | 11.00       | 9.88       | 10.00       | 0.80       | 1.00        | 2.20    | 2.00        | 2.20                | -----                | 25 85  | 5223              |
| 4.33      | 10.52            | 10.50       | 10.28      | 10.00       | 0.24       | 0.50        | 2.79    | 2.00        | 2.79                | -----                | -----  | 5041              |
| 7.31      | 8.76             | 8.50        | 8.54       | 8.00        | 0.22       | 0.50        | 5.09    | 5.00        | 5.09                | -----                | 24 00  | 4542              |
| 1.59      | 8.51             | 8.50        | 8.07       | 8.00        | 0.44       | 0.50        | 5.59    | 5.00        | 5.59                | -----                | -----  | 5002              |
| 6.90      | 12.19            | 10.50       | 11.49      | 10.00       | 0.70       | 0.50        | 5.55    | 2.00        | 5.55                | -----                | 24 00  | 4645              |
| 1.76      | 10.72            | 11.00       | 10.50      | 10.00       | 0.32       | 1.00        | 3.30    | 3.00        | 3.30                | -----                | 24 00  | 4772              |
| 7.75      | 11.26            | -----       | 10.88      | 10.00       | 0.38       | 1.00        | 2.30    | 2.00        | 2.30                | -----                | 22 00  | 4592              |
| 8.01      | 10.94            | 11.00       | 10.28      | 10.00       | 0.66       | 1.00        | 2.05    | 2.00        | 2.05                | -----                | 22 15  | 4509              |
| 4.39      | 9.22             | 9.00        | 8.26       | 8.00        | 0.96       | 1.00        | 6.12    | 5.00        | 6.12                | -----                | 28 00  | 4902              |
| 8.35      | 11.98            | 11.00       | 10.36      | 10.00       | 1.62       | 1.00        | 2.33    | 2.00        | 2.33                | -----                | 22 25  | 4911              |
| 9.50      | 12.34            | 11.00       | 10.82      | 10.00       | 1.52       | 1.00        | 2.23    | 2.00        | 2.23                | -----                | 22 00  | 4668              |
| 5.58      | 9.34             | 8.50        | 8.28       | 8.00        | 1.06       | 0.50        | 5.49    | 5.00        | 5.49                | -----                | 24 75  | 4631              |
| 4.44      | 8.73             | 8.50        | 7.83       | 8.00        | 0.90       | 0.50        | 5.46    | 5.00        | 5.46                | -----                | 27 00  | 4707              |
| 5.50      | 10.46            | 10.50       | 10.32      | 10.00       | 0.14       | 0.50        | 2.20    | 2.00        | 2.20                | -----                | 27 00  | 4872              |

\*Deficient.

TABLE VIII.—ROCK AND

| Chemist's number. | Name of Manufacturer and Brand.            | Sample Taken From                  |
|-------------------|--|------------------------------------|
| 5200              | Royster's 10-2 Phosphate and Potash, ----- | W. C. Headley, Waymarth, -----     |
| 4741              | Royster's 10-2 Phosphate and Potash, ----- | S. A. Philippy Myerstown, -----    |
|                   | YORK CHEMICAL WORKS,<br>YORK, PA.          |                                    |
| 4588              | Ten and Two, -----                         | Enos H. Horst, Chambersburg, ----- |
|                   |  | Average, -----                     |
|                   |  | Total Average, -----               |



## POTASH FERTILIZERS—Concluded.

| Moisture. | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
|           | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as Muriate. | Present as Sulphate. |  |                   |
|           | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
|           |                  |             |            |             |            |             |         |             |                     |                      |  |                   |
| %         | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 1.10      | 10.83            | 10.50       | 10.19      | 10.00       | 0.64       | 0.50        | 2.47    | 2.00        | 2.47                | -----                | \$2 00                                       | 5200              |
| 6.93      | 10.93            | 10.50       | 10.16      | 10.00       | 0.77       | 0.50        | 2.67    | 2.00        | 2.67                | -----                | -----  | 4741              |
| 6.64      | 10.19            | 10.00       | *9.78      | 10.00       | 0.41       | -----       | 2.15    | 2.00        | 2.15                | -----                | -----  | 4588              |
| 5.56      | 10.21            | -----       | 9.53       | -----       | 0.68       | -----       | 3.47    | -----       | -----               | -----                | \$24 46                                      | -----             |
| 6.03      | 11.07            | -----       | 10.37      | -----       | 0.70       | -----       | 5.07    | -----       | -----               | -----                | \$25 80                                      | -----             |

\*Deficient.

TABLE IX.—MISCEL

| Chemist's number. | Name of Manufacturer and Brand.   | Sample Taken From—                                     |
|-------------------|---|--|
| NITRATE OF SODA.  |   |  |
|                   | THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK N. Y.                                  |  |
| 4622              | Nitrate of Soda, -----  | Edward W. Brinton & Son, West Chester.                 |
| 4479              | Nitrate of Soda, -----  | H. A. Fishburn, Penbrook, -----                        |
| 5229              | Nitrate of Soda, -----  | Taylor Pepper, Fredericktown, -----                    |
| 4578              | Nitrate of Soda, -----  | E. C. Thomas, Gettysburg, -----                        |
|                   | ARMOUR FERTILIZER WORKS, BALTIMORE, MD.   |  |
| 5040              | Armour's Big Crop Nitrate of Soda, -----  | Hibner-Hoover Hardware Co., DuBois, -                  |
|                   | BAUGH & SONS COMPANY, PHILADELPHIA, PA.   |  |
| 4927              | Nitrate of Soda, -----  | E. R. Wargo, Danville, -----                           |
|                   | DUMONT FERTILIZER CO., INC., PHILADELPHIA, PA.  |  |
| 4981              | Dumont's Nitrate of Soda, -----   | A. F. Kimmel Orwigsburg, -----                         |
|                   | FARMERS FERTILIZER WORKS, ELIZABETHTOWN, PA.  |  |
| 4759              | Nitrate of Soda, -----  | H. F. Horting, Newport, -----                          |
|                   | GRIFFITH & BOYD CO., BALTIMORE, MD.   |  |
| 5072              | Nitrate of Soda, -----  | C. A. Geist, Warriors Mark, -----                      |
| 4734              | Nitrate of Soda, -----  | Mahoning Hardware & Implement Co., Punxsutawney.       |
|                   | KEYSTONE BONE FERTILIZER CO., PHILADELPHIA, PA.   |  |
| 5300              | Nitrate of Soda, -----  | John Kunkle, Mahanoy City, -----                       |
|                   | LEBANON FERTILIZER WORKS, LEBANON, PA.  |  |
| 4964              | Nitrate of Soda, -----  | I. E. Artz, Hegins, -----                              |
| 4895              | Nitrate of Soda, -----  | Soloman & Waltz, Antes Fort, -----                     |
|                   | RAISIN-MONUMENTAL CO., SUBSIDIARY OF THE VIRGINIA-CAROLINA CHEMICAL CO., BALTIMORE, MD. |  |
| 4892              | Nitrate of Soda, -----  | Herman Keebler, Montoursville, -----                   |
|                   | R. S. ROYSTER GUANO COMPANY, BALTIMORE, MD.   |  |
| 4797              | Nitrate of Soda, -----  | John Dale, State College, -----                        |
|                   | PENNSYLVANIA FARMERS COOPERATIVE FEDERATION, INC., PHILADELPHIA, PA.                    |  |
| 4783              | P. F. C. F. Nitrate of Soda, -----  | J. C. Herpster, Benfer, -----                          |
|                   | SWIFT & COMPANY, BALTIMORE, MD.   |  |
| 4854              | Swift's Nitrate of Soda, -----  | Dayton Milling Co., Towanda, -----                     |
| 5123              | Swift's Nitrate of Soda, -----  | Marvin Miller, Clark Summit, -----                     |
|                   | YORK CHEMICAL WORKS, YORK, PA.  |  |
| 4587              | Nitrate of Soda, -----  | Enos H. Horst, Chambersburg, -----                     |
| 4996              | Nitrate of Soda, -----  | Manchester Grange Cooperative Association, Emigsville. |
|                   |   | Average, -----   |



TABLE IX.—MISCEL

| Chemist's number. | Name of Manufacturer and Brand.  | Sample Taken From—   |
|-------------------|--|--|
|                   | <b>DRIED FISH.</b>   |  |
|                   | <b>BAUGH &amp; SONS COMPANY, PHILADELPHIA, PA.</b>   |  |
| 5100              | Baugh's Ground Fish, -----   | Homer Webster, Wellsboro, -----                              |
|                   | <b>TANKAGE.</b>  |  |
|                   | <b>THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.</b>                                 |  |
| 5213              | 12% Blood Tankage, -----   | G. R. Clark, Seranton, -----                                 |
|                   | <b>BAUGH &amp; SONS COMPANY, PHILADELPHIA, PA.</b>   |  |
| 5102              | Baugh's High Grade Tankage, -----  | Geo. Adamy, Wellsboro, -----                                 |
| 4998              | Baugh's High Grade Tankage, -----  | Manchester Grange Cooperative Association, Emigsville. ----- |
| 5311              | Baugh's High Grade Tankage, -----  | W. M. Simington, Pottsgrove, -----                           |
|                   | <b>THE HUBBARD FERTILIZER COMPANY, BALTIMORE, MD.</b>  |  |
| 4781              | Tankage, -----   | J. W. Morman, Beaver Springs, -----                          |
|                   | <b>LEBANON FERTILIZER WORKS, LEBANON, PA.</b>  |  |
| 5272              | Levan's Animal Tankage 6-9, -----  | Harrison Homm, Lehighton, -----                              |
|                   | <b>FRED E. LORD, ESPY, PA.</b>   |  |
| 4908              | Tankage, -----   | Fred E. Lord, Espy, -----                                    |
|                   | <b>SWIFT &amp; COMPANY, BALTIMORE, MD.</b>   |  |
| 4855              | Swift's Tankage, -----   | Dayton Milling Co., Towanda, -----                           |
| 5290              | Swift's Tankage, -----   | Ralph Hassler, Berwick, -----                                |
|                   | <b>UNITED HOME DRESSED MEAT CO., ALTOONA, PA.</b>  |  |
| 5073              | Dry Tankage, -----   | United Home Dressed Meat Co., Altoona, -----                 |
|                   | <b>F. L. WINNER, LOCK HAVEN, PA.</b>   |  |
| 4874              | Winner's Tankage, -----  | F. L. Winner, Lock Haven, -----                              |
|                   | <b>KAINIT.</b>   |  |
|                   | <b>RAISIN-MONUMENTAL CO., SUBSIDIARY OF THE VIRGINIA-CAROLINA CHEMICAL CO., BALTIMORE, MD.</b> |  |
| 4890              | Genuine Imported Kainet, -----   | Herman Keebler, Montoursville, -----                         |
|                   | <b>F. S. ROYSTER, GUANO COMPANY, BALTIMORE, MD.</b>  |  |
| 5086              | Genuine German Kainet, -----   | McConnell Brothers, Hughesville, -----                       |
|                   | <b>MURIATE OF POTASH.</b>  |  |
|                   | <b>THE AMERICAN AGRICULTURAL CHEMICAL CO., NEW YORK, N. Y.</b>                                 |  |
| 4865              | Muriate of Potash, -----   | J. E. Jackson, Everett, -----                                |
| 4717              | Muriate of Potash, -----   | A. P. Marshall, Smicksburg, -----                            |
| 5128              | Muriate of Potash, -----   | Stanley White, Clark Summit, -----                           |
|                   | <b>ARMOUR FERTILIZER WORKS, BALTIMORE, MD.</b>   |  |
| 4953              | Muriate of Potash, -----   | J. H. Duvall, Guys Mill, -----                               |

## LANEUS FERTILIZERS—Continued.

| Moisture. | NITRO-GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place of selection. | Chemist's number. |
|-----------|------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|--|-------------------|
|           | Found.     | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as Muriate. | Present as Sulphate. |  |                   |
|           |            |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |  |                   |
| %         | %          | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$   |                   |
| 5.89      | 9.00       | 8.23        | 7.53             | 5.00        |            |             |            |             |         |             |                     |                      |  | 5100              |
| 7.13      | 10.19      | 9.87        | 3.33             |             |            |             |            |             |         |             |                     |                      | 84 00  | 5213              |
| 4.60      | 7.25       | 5.76        | 11.56            | 5.00        |            |             |            |             |         |             |                     |                      | 45 50  | 5102              |
| 5.96      | 7.12       | 5.76        | 11.98            | 4.00        |            |             |            |             |         |             |                     |                      | 53 00  | 4698              |
| 4.40      | 6.76       | 5.78        | 12.81            | 4.00        |            |             |            |             |         |             |                     |                      |  | 5311              |
| 7.10      | 6.05       |             | *†5.71           |             |            |             |            |             |         |             |                     |                      | 52 00  | 4781              |
| 2.80      | 5.82       | 4.94        | 10.36            | 9.00        |            |             |            |             |         |             |                     |                      |  | 5272              |
| 8.47      | 5.90       | 5.34        | 14.38            | 11.44       |            |             |            |             |         |             |                     |                      | 40 00  | 4908              |
| 5.20      | 7.42       | 7.40        | 9.45             |             |            |             |            |             |         |             |                     |                      | 63 00  | 4855              |
| 4.64      | 7.53       | 7.40        | 9.77             |             |            |             |            |             |         |             |                     |                      | 58 50  | 5290              |
| 5.02      | 6.17       | 6.00        | 14.15            | 9.00        |            |             |            |             |         |             |                     |                      | 30 00  | 5073              |
| 6.51      | 5.75       | 5.50        | 15.15            | 15.00       |            |             |            |             |         |             |                     |                      |  | 4874              |
| 5.62      | 6.89       |             | 10.79            |             |            |             |            |             |         |             |                     |                      | 53 25  |                   |
| 1.90      |            |             |                  |             |            |             |            |             | 14.24   | 12.40       | 14.24               |                      | 19 00  | 4800              |
| 3.70      |            |             |                  |             |            |             |            |             | 12.96   | 12.40       | 12.96               |                      | 19 00  | 5086              |
| 2.80      |            |             |                  |             |            |             |            |             | 13.60   |             |                     |                      | \$19 00                                      |                   |
| 1.83      |            |             |                  |             |            |             |            |             | *47.38  | 48.00       | 47.38               |                      | 48 00  | 4864              |
| 0.05      |            |             |                  |             |            |             |            |             | 54.00   | 48.00       | 54.00               |                      | 41 50  | 4717              |
| 1.10      |            |             |                  |             |            |             |            |             | 48.61   | 48.00       | 48.61               |                      | 48 00  | 5128              |
| 0.60      |            |             |                  |             |            |             |            |             | 52.95   | 48.00       | 52.95               |                      | 47 00  | 4953              |

\*Deficient.

†Registered Guarantee.



TABLE IX.—MISCEL

| Chemist's number. | Name of Manufacturer and Brand.   | Sample Taken From—                                     |
|-------------------|---|--|
| 5039              | Muriate of Potash, -----<br>BAUGH & SONS COMPANY, PHILADELPHIA, PA.                                 | Hibner-Hoover Hardware Co., DuBois, -                  |
| 4727              | Muriate of Potash, -----  | J. M. Rankin, Home, -----                              |
| 5161              | Muriate of Potash, -----<br>DUMONT FERTILIZER CO., INC., PHILADELPHIA, PA.                          | Homer Webster, Wellsboro, -----                        |
| 4979              | Dumont's Muriate of Potash, -----<br>GRIFFITH & BOYD CO., BALTIMORE, MD.                            | A. F. Kimmel, Orwigsburg, -----                        |
| 4735              | Muriate of Potash, -----<br>LEBANON FERTILIZER WORKS, LEBANON, PA.                                  | Mahoning Hardware & Implement Co., Punxsutawney, ----- |
| 4968              | Muriate of Potash, -----  | I. E. Artz, Hegins, -----                              |
| 4886              | Muriate of Potash, -----<br>FRED E. LORD, ESPY, PA.   | Soloman & Waltz, Antes Fort, -----                     |
| 4909              | Muriate of Potash, -----<br>F. S. ROYSTER GUANO COMPANY, BALTIMORE, MD.                             | Fred E. Lord, Espy, -----                              |
| 4722              | Muriate of Potash, -----<br>SWIFT & COMPANY, BALTIMORE, MD.   | E. J. Welsh, Plumville, -----                          |
| 5110              | Swift's Muriate of Potash, -----  | M. P. Close, Tioga, -----                              |
| 5292              | Swift's Muriate of Potash, -----  | Ralph Hassler, Berwick, -----                          |
| 5124              | Swift's Muriate of Potash, -----<br>YORK CHEMICAL WORKS, YORK, PA.                                  | Marvin Miller, Clark Summit, -----                     |
| 4806              | Muriate of Potash, -----  | C. L. Allen, Powell, -----                             |
| 4597              | Muriate of Potash, -----  | Emanuel Berkley, Strasstown, -----                     |
| 5066              | Muriate of Potash, -----<br>SULPHATE OF POTASH.   | H. E. Weitkecht, Northampton, -----                    |
|                   | PIEDMONT MT. AIRY GUANO CO., BALTIMORE, MD.   | Average, -----   |
| 4748              | Sulphate of Potash, -----<br>SWIFT & COMPANY, BALTIMORE, MD.  | Milton M. Wenger, Bareville, -----                     |
| 4853              | Swift's Sulphate of Potash, -----<br>MISCELLANEOUS.   | Dayton Milling Co., Towanda, -----                     |
|                   | THE BONE DRY LIME CORPORATION, CASSADA, N. Y.   | Average, -----   |
| 4829              | Humo Phos., -----   | McKee Farm near Wellsburg, N. Y., -----                |
| 4830              | Marl Humus, -----   | McKee Farm near Wellsburg, N. Y., -----                |
| 4960              | Sterilized Humus, -----<br>JOHNSTOWN SOIL FOOD CO., JOHNSTOWN, PA.                                  | P. J. Osterling & Sons, Butler, -----                  |
| 4464              | Soil Food Fertilizer, -----<br>PENNSYLVANIA FARMERS COOPERATIVE FEDERATION, INC., PHILADELPHIA, PA. | Johnstown Soil Food Co., Johnstown, -                  |
| 4966              | P. F. C. F. Nitrapo, -----  | L. D. Zehner, Tamaqua, -----                           |

## LANEUS FERTILIZERS—Concluded.

| Moisture. | NITRO-<br>GEN. |             | PHOSPHORIC ACID. |             |            |             |            |             | POTASH. |             |                     |                      | Selling price per ton at place<br>of selection. | Chemist's number. |
|-----------|----------------|-------------|------------------|-------------|------------|-------------|------------|-------------|---------|-------------|---------------------|----------------------|---|-------------------|
|           | Found.         | Guaranteed. | Total.           |             | Available. |             | Insoluble. |             | Found.  | Guaranteed. | Present as muriate. | Present as sulphate. |   |                   |
|           |                |             | Found.           | Guaranteed. | Found.     | Guaranteed. | Found.     | Guaranteed. |         |             |                     |                      |   |                   |
| %         | %              | %           | %                | %           | %          | %           | %          | %           | %       | %           | %                   | %                    | \$  |                   |
| 1.02      |                |             |                  |             |            |             |            |             | 52.24   | 48.00       | 52.24               |                      | 53 00   | 5039              |
| 0.23      |                |             |                  |             |            |             |            |             | 50.22   | 48.00       | 50.22               |                      | 46.00   | 4727              |
| 0.88      |                |             |                  |             |            |             |            |             | *46.18  | 48.00       | 46.18               |                      |   | 5101              |
| 0.10      |                |             |                  |             |            |             |            |             | 50.68   |             | 50.68               |                      | 41 00   | 4979              |
| 0.32      |                |             |                  |             |            |             |            |             | 50.13   | 50.00       | 50.13               |                      | 75 00   | 4735              |
| 0.12      |                |             |                  |             |            |             |            |             | 51.39   | 50.00       | 51.39               |                      | 43 25   | 4968              |
| 0.06      |                |             |                  |             |            |             |            |             | *49.30  | 50.00       | 49.30               |                      | 48 00   | 4836              |
| 0.26      |                |             |                  |             |            |             |            |             | 51.48   | 48.50       | 51.48               |                      | 45 00   | 4909              |
| 1.00      |                |             |                  |             |            |             |            |             | 52.40   | 48.00       | 52.40               |                      | 48 00   | 4722              |
| 0.15      |                |             |                  |             |            |             |            |             | 50.82   | 50.00       | 50.82               |                      | 55 00   | 5110              |
| 0.16      |                |             |                  |             |            |             |            |             | *49.78  | 50.00       | 49.78               |                      |   | 5292              |
| 0.25      |                |             |                  |             |            |             |            |             | 50.61   | 50.00       | 50.61               |                      | 48 50   | 5124              |
| 0.21      |                |             |                  |             |            |             |            |             | 56.41   | 50.00       | 56.41               |                      | 50 00   | 4806              |
| 0.33      |                |             |                  |             |            |             |            |             | 54.74   | 50.00       | 54.74               |                      |   | 4597              |
| 0.45      |                |             |                  |             |            |             |            |             | *47.19  | 50.00       | 47.19               |                      | 41 00   | 5006              |
| 0.48      |                |             |                  |             |            |             |            |             | 50.87   |             |                     |                      | \$49 02   |                   |
| 1.00      |                |             |                  |             |            |             |            |             | 49 66   | 48 00       | 4.70                | 44.96                |   | 4748              |
| 2.17      |                |             |                  |             |            |             |            |             | *48.31  | 50.00       | 2.60                | 45.71                | 58 00   | 4853              |
| 1.58      |                |             |                  |             |            |             |            |             | 48.99   |             |                     |                      | \$58 00   |                   |
| 4.97      | 0.65           | 0.60        | 7.44             | 7.25        | 0.68       | 0.30        | 6.76       | 6.95        |         |             |                     |                      | 31 50   | 4829              |
| 6.50      | 0.75           | 0.82        | 0.41             | 0.25        | 0.15       | 0.19        | 0.26       | 0.06        |         |             |                     |                      |   | 4830              |
| 30.00     | 1.50           | 1.27        | 0.36             | 0.25        | 0.32       | 0.17        | 0.04       | 0.08        |         |             |                     |                      |   | 4960              |
| 8.13      | 0.43           |             | 2.31             |             | 1.21       |             | 1.10       |             | 1.05    |             | 1.05                |                      | 20 00   | 4464              |
| 0.67      | 15.17          |             |                  |             |            |             |            |             | 12.30   |             | 1.30                | †11.00               |   | 4906              |

†Potash present as nitrate.

\*Deficient.

